School of Nursing and Midwifery
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A Qualitative Descriptive Study Exploring the Perception of Confidence within Midwives Facilitating Water Birth in Western Australia

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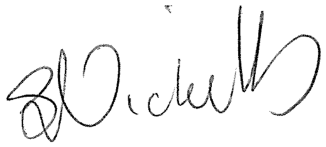
DECLARATION

To the best of my knowledge and belief this thesis contains no material previously published by any other person except where due acknowledgement has been made.

This thesis contains no material which has been accepted for the award of any other degree or diploma in any university.

Signature: 

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ABSTRACT

Background: The option of labouring and/or birthing immersed in warm water has become widely available throughout hospitals in the United Kingdom and Europe over the last two decades. The practice, which also occurs in New Zealand and interstate in Australia, has only been available in Western Australia for women birthing at home with the publically funded Community Midwifery Program. Despite its popularity and acceptance elsewhere birth in water has only recently become an option for women attending some public health services in Western Australia. The Clinical Guidelines that support water birth require that the midwives be confident and competent to care for these women. The issue of competency can be addressed with relative ease by maternity care providers; however confidence is rather more difficult to teach, foster and attain. Clinical confidence is an integral element of clinical judgement promoting patient safety and comfort. For this reason confident midwives are an essential requirement to support the option of water birth in Western Australia.

Design and objectives: This qualitative study explored the phenomenon of confidence from the perspective of the midwives working in Western Australia. This study focused on identifying midwives' perceptions of becoming and being confident in supporting water birth and on the factors they perceive to inhibit and enhance the development of that confidence.

Methodology: A modified grounded theory methodology was selected to address the phenomenon around midwives confidence with water birth. Initially, purposive sampling was employed. Following the initial interviews a theoretical sampling technique was continued until saturation was achieved. Sixteen midwives were interviewed in total. In addition to individual interviews, ten midwives were also recruited for a focus group interview through a convenience sampling method. The transcripts of these interviews were thematically analysed using a constant comparison technique.

Findings: Three major categories characterising midwives perceptions of becoming and being confident to support water birth were identified along with factors they

perceive to inhibit and enhance the development of that confidence. The categories are labelled ***what came before the journey, becoming confident – the journey*** and ***staying confident.*** The first major category labelled ***what came before the journey*** contains three subcategories, **attitude to water birth, midwifery initiation** and **midwifery education.** Together they illustrate factors that midwives felt influenced their perception of water birth before they personally witnessed this option. The second major category that was identified was ***becoming confident – the journey.*** This major category contains five subcategories **trust in the guidelines, another midwife in the room**, **consistent exposure – the challenge, inner confidence** and **unlearning –old skills for new** which illustrates factors midwives felt influenced their development of confidence as they began supporting women choosing water birth. The final major category was ***staying confident*** and encompassed three sub categories **it's just birth, mothers and midwives enthusing each other,** and **knocking confidence.** This category describes factors that the midwives identified as important in staying confident to work with women who have chosen water birth and how the birthing environment impacted on confidence.

Conclusion: The findings of this study provide insight into factors that influence the perception of confidence within midwives supporting women who choose water birth in Western Australia. Understanding the phenomena of confidence may assist maternity health care providers with strategies to develop confident midwives to support the option of water birth. Recommendations based on the findings have been proposed for clinical practice, education and future research endeavours.

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For me, the preparation of this thesis has resembled a birth. From its conception to the delivery, there have been moments of uncertainty and enlightenment, pain and empowerment. I can now reflect on the product of my labour with a sense of satisfaction, immense pride and the feeling ... 'That wasn't so bad'...

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CHAPTER ONE – INTRODUCTION

The first chapter of this thesis aims to provide the reader with an understanding of how and why this study was conceived and carried out. To achieve this, an explanation of clinical competence as an integral part of nursing and midwifery practice is provided, and the relationship between competence and confidence is discussed. An example of a midwifery activity that requires midwives to be competent and confident is the facilitation of birth in water. This chapter discusses how, when the option of water birth was introduced into Western Australia (WA), midwives who were competent and confident to support this option were needed. Due to the fact that water birth was not supported by WA maternity health services prior to this date, the number of midwives who were confident to facilitate this option were limited. A history of water birth throughout the developed world is then provided, and the reasons for it being unsupported in WA compared to elsewhere are explored. The challenge of introducing water birth into WA maternity services is then discussed, as is the dependence on having confident midwives available to ensure the successful adoption of this practice.

Competence and confidence

Attainment of clinical competence is an integral requirement for safe nursing and midwifery practice. The Australian Nursing and Midwifery Council (ANMC) definition of competence outlined the multifaceted nature of the concept, clarifying that clinical competence reflects “the combination of skills, knowledge, attitude, values and abilities that underpin effective and/or superior performance in a profession/occupational area” (ANMC 2006, p. 3). Competence refers to an individual's capacity to perform job responsibilities. Competency focuses on an individual's actual performance in a particular situation (McConnell, 2001). The Australian ‘National Competency Standards for the Midwife’ provide an overarching framework to measure midwifery competence organised into four domains central to midwifery practice. Each domain is divided into competencies to represent aspects of professional performance. Midwives are required to demonstrate their ability to perform many clinical tasks, such as administration of epidural analgesia medications and perineal suturing, in a safe and competent manner to employers before they are

able to perform those tasks unsupervised. Although strategies to measure and teach competencies varies between health services, the format for each is broadly similar. Generally the process includes attendance at education sessions or self-directed learning, observation of the procedure on at least one occasion, and facilitation and assessment under supervision (Health Networks Branch, 2011).

Confidence has been defined as ‘a feeling of self-assurance from an appreciation of one’s abilities or qualities’ and self-confidence as ‘a feeling of trust in one’s abilities, qualities, and judgments’(Oxford Dictionaries, 2014 accessed online 28/01/14). Confidence can have an impact on everything from psychological states to behaviour and motivation (Bandura, Adams, & Beyer, 1977) and has become one of the most studied topics in psychology (Gross, 2012). It has been suggested that within professions such as nursing and midwifery, patients being cared for should feel safe and reassured by the standard of care provided by their health professional (Perry, 2011; White, 2009). Low self-confidence can contribute to other people feeling uncomfortable, so nurses and midwives must demonstrate a level of self-confidence that promotes patient comfort. Kröner and Biermann assert that “when we listen to the answers of a mechanic, physician or other expert and feel that they are not confident, we also tend to fear they do not know what they are talking about” (Kröner & Biermann, 2007, p. 589). The concept of confidence is, however, more important than ensuring patient comfort. Clinical reasoning is influenced by confidence and the care provider’s willingness to make a decision. The culmination of clinical reasoning is clinical judgement which moves reasoning into action. This reasoning is important in maternity care because midwives are required to analyse clinical situations and have the confidence to make a decision based upon their clinical judgement and action that decision (Dempsey, Hillege, & Hill, 2014).

White (2009) carried out a concept analysis of self-confidence and identified key attributes that include belief in positive achievement, persistence and self-awareness. Ulrich and associates (2010) linked the concepts of competence and confidence, claiming, “competence without self-confidence is insufficient” (p. 373). Competence and confidence however, do not always co-exist; one may be confident but not be able to demonstrate appropriate clinical competence. At the same time, a midwife

can demonstrate competence in the performance of particular skills but may not necessarily feel confident with the skill.

Choice in maternity care

Much of health care practice focuses on pathology and ill health; however this is not the usual situation in maternity care where women are experiencing a normal physiological process that is sometimes complicated by unexpected events. Labour and birth is a complex, multifaceted and major life event encompassing physiological, emotional, psychological and social elements (Fraser, Cooper, & Myles, 2009). It is therefore highly individualised and its features and outcome cannot be predicted with certainty (Bryant, 2009; Cluett & Burns, 2009). In recognition of this fact, recommendations from governments and professional organisations globally have determined that maternity services should consider women's individual needs around childbearing and offer choice in the care being offered (World Health Organization, 2005). Choice regarding the setting in which to give birth is documented as a crucial factor for a positive birth experience (Coalition for Improving Maternity Services, 2007; Lothian, 2007, 2009). In a maternity services review conducted by the Australian government in 2009, it was recognised that a maternity service "that delivers high-quality and accessible care based on informed choice must be the goal to which we aspire" (Bryant, 2009, p. iii). This review acknowledged the importance of assisting Australian women to make decisions about their maternity care, including the choice of where and how they would prefer to give birth to their baby (Bryant, 2009).

Immersion in warm water during labour and/or birth is one of a number of choices available to support a woman with an uncomplicated pregnancy and labour who desires a natural physiological birthing experience. Physiological labour at full term starts spontaneously between the 38th and 42nd week of pregnancy and progresses to full cervical dilatation and birth of the baby without the need for any form of intervention (Fraser et al., 2009). Water birth occurs where the baby is born while the mother is immersed to the level of her chest in water. The baby is brought through the water to the surface and into air at which point its transition to extra-uterine life begins (Garland, 2011). When natural physiological labour and/or birth takes place

with the woman immersed in water it is colloquially known as water birth. For the purpose of this thesis the term ‘water birth’ refers to the process of a woman labouring and/or giving birth to her baby whilst immersed in water.

Confidence and competence around water birth

In 2009 clinical guidelines for water birth were developed by the Western Australian Women’s and Newborns’ Health Network (WNHN) in response to increasing consumer demand for this option. An Operational Directive that endorsed the water birth clinical guidelines was first published in October 2009 (Department of Health, 2009). The WNHN guidelines and Operational Directive’s aims were to enable midwives and medical practitioners to provide care that is as safe as possible for healthy pregnant women choosing a water birth. Both these documents state that the midwife or medical practitioner must be confident and competent to facilitate a woman’s labour and/or birth in water (Department of Health, 2009).

The requirement to be a confident water birth practitioner is not unique to WA. Operational statements, policies, guidelines and professional codes of conduct from bodies governing maternity care and practice throughout the United Kingdom (UK), New Zealand and Australia require that midwives supporting women choosing water birth be confident to support women with this birth option (Department of Health, 2009; Government of South Australia, 2005; RANZCOG., 2008; RCM, 1994; RCOG., 2006; UKCC, 1994; Women’s and Children’s Health, 2006).

The WNHN clinical guidelines outline the process for WA midwives to attain competency in the supporting water birth for women who make this choice (Department of Health, 2009). In order to support the achievement of these competency requirements, the WNHN developed an e-learning package that was launched in 2010 with additional study days designed to impart the knowledge and clinical skills needed to safely facilitate water birth. The content of these programs included evidence associated with the physiological responses during water birth as well as safety and efficacy issues for care providers. Practical issues addressed in the e-learning package and reinforced in the study days include key topics such as required water depth and temperature, management of the third stage of labour and

assessing blood loss in water. The WNHN recognised the need for clinical confidence when preparing the water birth guidelines, however no advice or insight was offered into how midwives should develop the confidence required to support women who had chosen the option of water birth.

Anecdotal evidence published in the form of a reflection by a student midwife highlights an incident in a maternity unit where a suitable couple were denied the option of a water birth due to their allocated midwife being untrained and unconfident with supporting this birthing option (Byrne, 2006). My own experience as a registered midwife working in the UK and in Australian maternity settings that offer the option of water birth supports Levy's (2004) assertion that when midwives lack confidence in their own ability to support a woman's choice to birth in water, they employ a form of protective gate keeping. Midwives may influence women's decision making either consciously or sub-consciously to align with their own comfort and/or confidence level rather than by informing women's decision making with the use of evidence. Anecdotally, I have found this is particularly the case in hospital settings when the woman and midwife have not had an ongoing relationship during the antenatal period.

There is evidence that health professionals can be biased in their provision of information and that they may support one option over another without disclosing their preference (Masse & Legare, 2001). Kirkham (2004) discusses midwives' roles in facilitating informed choice: She suggests that the midwife feels she must ensure the woman makes the 'right' choice for her (the woman's) personal situation. Women in WA are required to sign an agreement before they enter the birthing pool stating that if the midwife has any safety concerns during labour and birth that require the woman to exit the pool she will do so. A lack of confidence on the part of the midwife may influence a form of protective steering, as the signed 'contract' can be used as a lever to guide the labouring women back into the birthing room and the midwives comfort zone, thus denying the woman the birth option she most desired for reasons that may be nothing to do with her own or her baby's wellbeing.

How water birth in Western Australia differs from other countries

The context for this study is the metropolitan public maternity services in Perth, WA. This context differs from other developed international maternity services as the option of birthing a baby underwater was not common prior to 2009 as there was no policy or guidance prior to publication of the clinical guidelines by the Women's and Newborn Health Network. The option of water birth at this time was only available in a home birth setting and supported either by the publically funded Community Midwifery Program or by midwives in private practice. Before 2009, water birth in a hospital setting was considered an adverse clinical incident or accident that required investigation by maternity managers and discussion at multi-disciplinary levels.

> *Oh no… you could only have your baby in water if you had a home birth. If you had an accidently water birth in a hospital you had to fill in a lot of paper work. At least now you can have a hospital water birth in some places….not many of the hospitals, but some. (Personal communication, Kaleeya Hospital clinical midwife, December 2010)*

The history of water birth from an international perspective is now presented to situate the historical and current context of water birth in WA compared to other countries in the developed world. This information is provided to further apprise the reader of the climate and context in which midwives in WA were required to develop their confidence with water birth.

History of water birth

The therapeutic effects of water immersion have been used during labour and child birth for many years. According to legend, many of the ancient priests and priestesses of Egypt were born in water. Likewise folk law from early cultures including the South Pacific Islands and the Indians of Central America offers testimonials to birthing into water (Balaskas, 2004; Garland & Jones, 2000). There is also documented historical evidence of water birth in the Southern Hemisphere: Maori people in the Te Kaha area of New Zealand were reported to have laboured in the sea and birthed on the beaches (Banks, 2009).

Understandably water births from early history seemingly only occurred in warm climates where there were temperate seas, shallow pools and rivers. There are no recorded accounts of the use of water for labour or birth within central Europe or other northerly regions until the advent of plumbing and the widespread availability of artificially heated water, baths and pools (Garland, 2011). It was however from these colder regions that the modern era of using water immersion for labour and/or birth was first initiated. In the 1960's controversial Russian researcher Igor Tjarkovsky began experimenting with water birth in a glass tank installed in his home in Moscow. Tjarkovsky, a swimming instructor, was primarily interested in the baby and its ongoing psychological development rather than the actual birthing experience (Lichy 1993).

It was Dr Michel Odent in the 1970's who first became interested in the influence of water on the labouring woman. This French obstetrician worked in the General Hospital in Pithiviers, northern France. Odent's philosophy was based on trusting the ability of each woman to birth her baby in her own instinctive way; he emphasised the need for privacy, to enable the mother to secrete her own natural hormones and thus ensure good progress through labour and birth (Odent, 1983). Odent introduced a pool into the birthing room primarily for pain relief and relaxation during long or difficult labours. Inevitably some water births did occur - over a hundred by 1983. Odent (1983) published his findings in *The Lancet* and images of water birth were broadcast on international television; this brought knowledge of this new birthing option into the public domain (Garland, 2011).

Water immersion for labour and birth continued to increase through the 1980's and 1990's not only in Europe but also through the Americas and Australasia. The first reported modern day water birth in the southern hemisphere occurred at Estelle Myer's Rainbow Dolphin Centre in New Zealand in March 1982. Myer, who was an Australian Dolphin Researcher, planned to set up a research programme on the use of water in labour and birth at the National Women's Hospital in Auckland. She was strongly influenced by the work of Michel Odent who was reportedly prepared to come to New Zealand and supervise the start of the programme. Estelle Myers went on to organise two conferences promoting the idea of human affinity with dolphins

and the benefits of birth in water; these events further heightened water birth's international profile (Banks, 2009).

Back in the United Kingdom (UK) in the 1980's, mainly inspired by Odent, midwives and general practitioners began to practise water immersion for labour and birth in public hospitals and the home setting. Roger Lichy, an independent general practitioner in the southwest of England, would famously travel to women's homes with a birthing pool strapped to the roof of his car to facilitate the use of water for labour and birth (Lichy, 1993).

The popularity of the use of water immersion for labour and birth further increased in the UK following the Changing Childbirth report (Department of Health, 1993). One of the recommendations from this report was that all maternity units in the UK provide women with access to a birthing pool. This recommendation led professional organisations to accept facilitation of water immersion as part of UK midwifery practice (RCM, 1994; UKCC, 1994). Over the ensuing decades, research has established that water immersion for birth is safe and enhances natural childbirth (Garland & Jones, 2000; Otigbah, Dhanjal, Harmsworth, & Chard, 2000), reduces the need for pharmacological analgesia, and supports midwives to use their skills of guiding and supporting women through a normal physiological labour and birth without the need for medical intervention (Garland, 2011).

By 2008 a review of maternity services in the UK identified that 11% of labouring women were birthing in water (Healthcare Commission Report, 2008). During the same period in the eastern states of Australia the popularity of water birth also began to spread, with Dr Bruce Sutherland and Dr Andrew Davidson as notable supporters. Dr Sutherland and his wife June, who was a midwife, are reported to have become disillusioned with the medicalised changes to maternity care in the late 1970's and 80's. Finding inspiration in the likes of Leboyer and Michel Odent they created a midwife led model of care and provided the first facility to offer water birth in Victoria (McGregor, 2012). Their birth centre is reported to have supported over 400 water births (Garland, 2011). Dr Andrew Davidson, whose wife is also a midwife, has been an advocate of water birth in the hospital and home setting for several decades. Dr Davidson is an Obstetrician at John Flynn Hospital in Queensland and

has produced DVD's promoting water birth (Garland, 2011). However, despite the acceptance and inclusion of the option of water birth elsewhere in the world and in the country, it was not an option for the majority of childbearing women in WA until 2009.

Challenges to water birth in Western Australia: Study justification

Despite the acceptance and inclusion of the option of water birth elsewhere in the world and in Australia, the maternity health care community in WA took until 2009 to endorse, with the publication of the WNHN guidelines and Operational Directive, the concept of water birth. The barriers to the introduction of water birth in WA prior to that time are now discussed.

Western Australia is a geographically isolated state that is also the largest state/territory in Australia, covering 2.5 million square kilometres (Australian Bureau of Statistics, 2013). Dispersed within the state in 2011 was a population of 2.28 million. At the end of June 2011, an estimated 628 900 (26.8%) of Western Australians were living outside the Perth metropolitan area. The total number of women who gave birth in WA was 30,843 during 2010 (Joyce & Hutchinson, 2012) and a significant part of maternity care was delivered in a hospital setting and led by a specialist obstetrician rather than midwives at that time (Joyce & Hutchinson, 2012). Unlike the UK where nearly all women birth in the publically funded National Health Service (NHS), in Australia women have the choice of public or private maternity care. Of the women who gave birth in a hospital setting in WA in 2010 the proportion who elected to use their private health insurance (that is, elected to be treated as a private patient with an obstetrician as their primary carer) was 38.2%. This is the highest percentage of all the individual states in Australia (Joyce & Hutchinson, 2012).

The maternity culture in WA has been described as being dominated by obstetricians working in private practice (Teakle, 2013). This culture is business focused and often governed by individual doctors' preferences, with less practice scrutiny compared to the public sector. Within the private sector midwives practice under the direction of obstetricians rather than in collaboration with them (Teakle, 2013). The Australian

government acknowledge in their review of maternity services in Australia that the maternity culture is one of high medical intervention (Bryant, 2009). It also acknowledges a lack of unanimity within and between some of the medical and midwifery professionals on issues of how to deal with risk and consumer preferences. The midwifery profession has traditionally supported water birth however the medical profession has remained largely resistant or ambivalent.

In WA, it was maternity care consumers who drove the Health Department to enable the option of water birth in the State's maternity units, as the following extract from a conversation with a midwife colleague who experienced this activism and its results shows:

> *Back in the south west [of WA] in 2007 a lot of women were choosing home birth with an independently practising midwife because they couldn't have a water birth in hospital! The Doctors didn't believe in water for pain relief in labour so they didn't realise that that would push them into a home birth system. The women of Bunbury really lobbied politicians ... The women sent their stories to the politicians' and everybody else, they went to every media they could and eventually they got the women and newborn network to not have water birth at the bottom of the priority list but it came right up to the top! (Personal communication, Community Midwifery Practice Midwife, January 2012)*

This quote demonstrates how it was in direct response to consumer demand from maternity care users that the issue of water birth was highlighted and action was prompted. The fact that the introduction of clinical guidelines for the use of water during labour and/or birth in WA Health hospitals and health services occurred as a direct response from maternity care users is also acknowledged by the WNHN (Health Networks Branch, 2011). Subsequent to the introduction of the state wide policy for the use of water during labour and/or birth in WA Health the WNHN published a report on the introduction of the state wide policy and clinical guidelines for the use of water during labour and/or birth in WA Hospitals and Health Services. This report described labour/birth episodes for maternity care services offering water immersion facilities for labour and/or birth in WA. Between April 2010 and March 2011 five maternity care facilities offered women the option of birthing while

immersed in water in WA. In this 12 month period, 233 babies were born immersed in water (5.3% of total births) and 638 women opted to use water immersion as analgesia during their labour (15.6%). These figures confirm that the option of using water immersion during labour and/or birth is one that is desirable to and supported by the maternity care users of WA. The report also highlights that some women were denied water birth due to the unavailability of competent and confident midwives; however the actual number was not accurately recorded on the water birth audit tool during this 12 month period (Health Networks Branch, 2011).

A competent and confident work force is an essential element in the delivery of all birthing options for the women of WA including the facilitation of water birth, which is the topic of this thesis. A literature review will follow in Chapter Two that demonstrates the gap in knowledge around the area of midwives development of professional confidence for clinical skills, in particular the facilitation of water birth for low risk women, and the need to investigate this phenomenon. The resulting study, which investigated and described how midwives in WA perceive their professional confidence to support women who have chosen the option of water birth, was conducted using qualitative methodology; the basis for this was that there is currently minimal evidence and understanding of this phenomenon within the WA context.

Therefore, this thesis presents a modified grounded theory study exploring the perception of professional confidence from midwives supporting the option of water birth in WA. The purpose of this study was to explore, explain and describe the phenomenon of becoming confident from the perspective of midwives supporting women who have chosen the option of water birth within the public health services of WA. The aim was to capture midwives' perceptions of becoming and being confident in conducting water birth in addition to factors perceived to inhibit and facilitate the development of that confidence.

Overview of the thesis

This thesis presents the journey I have travelled to discover the answer to a question that presented in the course of my clinical midwifery practice. I was asked to support

my colleagues as they learned to care for women who had chosen the option of water birth and I accepted the task, which involved enabling my colleagues to work towards becoming competent and confident in a clinical skill that was completely new to many and viewed by some as unconventional. This challenge ignited my interest in the phenomenon of professional confidence, how it is developed, obtained, retained, diminished and/or lost. Why was it that some midwives embraced the challenge of learning a new skill, while others were so resistant? Was there anything I could do to assist my colleagues to become confident and happy to offer suitable women this birthing option?

This first chapter has sought to clarify the importance of and differences between competence and confidence in relation to clinical skills. The need for choices in maternity care is then highlighted to support the need for the introduction of water birth as an option available to suitable women. The chapter then explained the context in which this study is set, WA, and uses water birth history to demonstrate how this context is uniquely different from other clinical setting where water birth has been introduced. The first chapter concludes by identifying the challenges posed by the unique context and the reasons why it is important that competent and confident midwives are available to support this birthing option for the women of WA.

Chapter two aims to highlight the gap in knowledge that this study will address. The chapter begins by offering a review of the current literature relating to the phenomena of professional confidence from different areas such as psychology, business and health. In the second section of chapter two the literature relating to the option of birthing in water is presented. The benefits, negatives and safety concerns relating to this birthing option are discussed as facilitating confidence is reliant on the knowledge that this is a safe practice.

Chapter three presents how a modified grounded theory methodology was selected as the best method to address the objectives of this study. The research objectives are then identified and the research methods are outlined under the conventional headings of setting, sampling and recruitment, ethical considerations, data collection and data analysis.

The fourth chapter in this thesis contains the findings of the research, which are richly illustrated with exemplary quotes taken from one to one interviews and focus group data. The three major categories identified from the data are introduced and the sub categories relating to each major category are explained using examples from the data to support the category.

The fifth and final chapter discusses the nature and meaning of the research findings. The findings of the study are compared to and considered against existing literature, theories and evidence; in many cases using the literature from disciplines other that midwifery, such as psychology and nursing. This chapter concludes with recommendations for clinical practice, education and further research drawn from the findings of this study.

Summary

This first chapter has apprised the reader of the background, rationale and justification for this study investigating the phenomenon of clinical confidence in midwives supporting water birth in WA. Clarification of the importance of and differences between competence and confidence in relation to clinical skills has been sought. The requirement of choice in birthing options for maternity care users was discussed to highlight the importance of introducing the option of water birth into hospital setting in WA. Chapter one then presents the context in which this study is set, WA using water birth history to demonstrate how this context is uniquely different from other maternity cultures where water birth has been introduced. Challenges posed by the unique context and the reasons why it is important that competent and confident midwives are available to support this birthing option for the women of WA are discussed. The first chapter concludes with an overview of this thesis.

Chapter two now follows which explores existing literature relating to the phenomena of confidence and the clinical practice of water birth in order to highlight the gap in knowledge that this study will address.

CHAPTER TWO – LITERATURE REVIEW

Introduction

The purpose of this study was to explore, explain and describe the phenomenon of confidence from the perspective of midwives supporting women who have chosen the option of water birth within the public health setting of WA. The first section of this chapter explores the literature relating to the phenomena of confidence including its meaning and relevance within the discipline of psychology where it has been examined in greater depth. Consequently, the works of Bandura are examined to describe the multi-faceted processes involved in the attainment and nurture of confidence. Literature exploring the meaning and importance of confidence is then reviewed. The first section concludes by reviewing literature relating to confidence around clinical skills within the professions nursing and midwifery.

In section two of this chapter the contemporary literature relating to water birth is apprised. This review begins with outlining the overwhelming benefits of water birth from a maternal perspective, including personal satisfaction, relief of pain, discomfort and relaxation. This information is included as it adds insight into why the inclusion of the option of water birth to the women of WA is desirable. Subsequent literature pertaining to the baby being born into water, notably issues of safety and wellbeing, are then presented as confidence in a skill can only be achieved if the facilitator is comfortable that the skill is beneficial. Finally, the chapter concludes with insights into literature describing how midwives perceive the option of water birth.

Search strategies/source of literature review

A literature review related to confidence and water birth was carried out using the Curtin University library databases. An electronic search of Pub Med, OVID, Cumulative Index to Nursing and Allied Health Literature (CINAHL), The Cochrane Library, ProQuest and Science Direct was performed. Articles were limited to full text articles in English published after 2000. For the first section of the literature review the key words ‘confidence’ and ‘self-efficacy’ were used in the abstract, title, key words and default search fields. Other relevant publications were sourced

through searching reference lists at the end of each of the review articles and journals identified. The results from the search strategy identified a plethora of literature from each search engine. Linking words “AND” and “OR” were then used to further enhance the search for relevant articles. The cluster search terms included ‘Professional AND confidence’, ‘professional confidence AND nursing and midwifery. For the second section of the literature review the key words used were ‘water birth’ and ‘water immersion’. As with section one, other relevant publications were sourced through searching reference lists at the end of each of the review articles and journals identified.

Confidence, self- confidence and self-efficacy

According to psychologist Albert Bandura (1997), confidence is a colloquial term that refers to the strength of belief but does not necessarily specify what the certainty is about. For example, a person can be supremely confident that they will fail at an endeavour. Whereas self-efficacy is the belief in one’s capabilities to organise and execute the courses of action required to manage prospective situations. In other words, self-efficacy is a person’s belief in his or her ability to succeed in a particular situation (Bandura, 1995). Bandura described confidence as a catchword rather than a construct embedded in a theoretical system. He suggests that advances in a field are best achieved by constructs that fully reflect the phenomena of interest and are rooted in a theory that specified the determinants of how people think, behave, and feel. Bandura chooses to use the term self-efficacy rather than confidence in his work (Bandura, 1997) . Since Bandura (1977) published his seminal paper, the subjects confidence, self-confidence or self-efficacy have become the most studied topics in psychology (Gross, 2012).

Bandura proposed that self-efficacy can have an impact on everything from psychological states to behaviour and motivation. People with a strong sense of self-efficacy have a tendency to view challenging problems as tasks to be mastered. They develop deeper interest in the activities in which they participate, form a stronger sense of commitment to their interests and activities and recover quickly from setbacks and disappointments (Bandura, 1997). In contrast, people with a low sense of self-efficacy tend to avoid challenging tasks because they believe that difficult

tasks and situations are beyond their capabilities. They focus on personal failings and negative outcomes so quickly lose confidence in personal abilities (Bandura, 1977). Bandura reports that self-efficacy development begins to form in early childhood as children deal with a wide variety of experiences, tasks, and situations. However, the growth of self-efficacy does not end during youth, but continues to evolve throughout life as people acquire new skills, experiences, and understanding (Bandura, 1997). The following table summarises the four major sources of self-efficacy as proposed by Bandura (1977).

Table 1: Four major sources of self-efficacy (Bandura, 1977)

Mastery Experiences	Bandura states the most effective way of developing a strong sense of self-efficacy is through mastery experiences. Performing a task successfully strengthens the sense of self-efficacy. However, failing to adequately deal with a task or challenge can undermine and weaken self-efficacy.
Social Modelling	Witnessing other people successfully completing a task is another important source of self-efficacy. According to Bandura seeing people similar to oneself succeed by sustained effort raises observers' beliefs that they too possess the capabilities to master comparable activities and succeed.
Social Persuasion	Bandura also asserted that people could be persuaded to belief that they have the skills and capabilities to succeed. Receiving verbal encouragement from other people can help overcome self-doubt and instead focus on giving their best effort to the task at hand.
Psychological Responses	Bandura reports individual responses and emotional reactions to situations also play an important role in self-efficacy. Moods, emotional states, physical reactions, and stress levels can all impact how a person feels about their personal abilities in a particular situation. However, Bandura also notes it is not the sheer intensity of emotional and physical reactions that is important but rather how they are perceived and interpreted. By learning how to minimize stress and elevate mood when facing difficult or challenging tasks, people can improve their sense of self-efficacy.

Bandura's theory of self-efficacy has also been used as a theoretical framework to explore, explain and predict behaviour in a variety of health promoting research including childbirth. Lowe, (1993) developed the Childbirth Self-Efficacy Inventory (CBSEI). This tool is designed to measure both outcome and self-efficacy expectations for active labour and birth. There is some evidence that fear and low

self-efficacy in labouring women may affect birth outcome (Ryding, Wijma, & Wijma, 1998), however other studies do not confirm this correlation (Berentson-shaw, Scott, & Jose, 2009; Fenwick, Gamble, Nathan, Bayes, & Hauck, 2009). The CBSEI is now more than two decades old and has never been validated as a research tool that can be used in relation to water birth or for use from the perspective of midwives' confidence.

Clinical confidence

Clinical reasoning is influenced by confidence and the care provider's willingness to make a decision. The culmination of clinical reasoning is clinical judgement, which moves reasoning into action. This process is important for midwifery because midwives are required to analyse clinical situations and have the confidence to make a decision related to actions to be undertaken (Dempsey et al., 2014). Jefford, Fahy, and Sundin (2011) discuss how rationality and analysis in clinical decision making are reliant on several factors including the decision makers being emotionally calm with the ability to access and draw upon knowledge and experience. Much like confidence, clinical reasoning is an essential component of patient safety and quality care (Banning, 2008).

Perry (2011) and White (2009) acknowledge that within professions such as nursing and midwifery it is a requirement that the patient being cared for also feels safe and reassured. As previously stated, Kröner and Biermann (2007) noted how low self-confidence makes other people uncomfortable "When we listen to the answers of a mechanic, physician or other expert and feel that they are not confident, we also tend to fear they do not know what they are talking about" (Kröner & Biermann, 2007, p. 589) . Nurses and midwives should therefore display a level of self-confidence to promote patient confidence in their ability to provide safe and effective care. White (2009) describes self-confidence as an attribute that may be fostered or mired and can be influenced by many factors. Perry (2011) and White (2009) both asserted that nurse educators would benefit from an understanding of the phenomenon of confidence in order to assist nursing students in their learning. They also concluded that by achieving self-confidence the nursing students would gain autonomy of practice that would ultimately benefit the recipients of their care. To this end they

each carried out a concept analysis that aimed to provide clarity to the meaning of the 'self-confidence' concept, thus gaining a fuller understanding of its attributes and antecedents (Perry, 2011; White, 2009).

White (2009) and Perry (2011) each conducted systematic, multidisciplinary database searches for theoretical work from the four disciplines of nursing, education, business, and psychology using the keywords 'confidence', 'self-confidence' and 'self-efficacy'. The final selection resulted in a sample size for analysis of 31 (White, 2009) and 51 final articles (Perry, 2011) respectively. In addition, several seminal works, dictionaries, and textbooks were included in the concept analysis.

White (2009) concludes that self-confidence has three defining attributes: belief in positive achievements, persistence and self-awareness. Belief in positive achievement was defined as a primary characteristic of self-confidence that explicates a personal belief that one can achieve an affirmative outcome in a certain situation. Persistence can also be equated with resilience (Moreno, Castillo, & Masere, 2007) while persistence in the face of obstacles is crucial to positive outcomes (Hutchinson, 2004; Kumar & Jagacinski, 2006; Polivy, 2002). Thirdly, self-awareness of personal anxiety level plays a pivotal role in the amount of confidence one possesses. Concepts such as level of arousal (Savitsky, Medvec, Charlton, & Gilovich, 1998) and upward-stimulation (Sanna, 1999) are often found in the literature concerning self-confidence. Most authors on this topic liken these terms with anxiety levels (Ronsten, 2005).

White (2009) also discusses antecedents of self-confidence. Those precursors to the concept (in this instance self-confidence) are termed antecedents and consist of knowledge, experience, gearing-up and success. Prior to the attainment of self-confidence some acquisition of knowledge must be achieved. In order for one to achieve knowledge, formal or informal education must occur. Experience or task orientation enhances motivation, which in turn promotes practice, which improves self-confidence (Hutchinson, 2004). The amount of exposure is directly correlated with the amount of self-confidence (Renner & Renner, 2001). Closely related to experience and support is the antecedent termed gearing-up. The psychological

literature posits the use of approach-behaviours as a means of preparation for situations (Sanna, 1999; Savitsky et al., 1998; Schunk & Pajares, 2005). One can have knowledge about a procedure, gain a support system, practise a skill, and be appropriately geared-up for situations, but if successes do not occur, self-confidence will be stalled. Successes definitely supports confidence building (Bandura, 1986; Moreno et al., 2007; Savitsky et al., 1998). White (2009) produced the following algorithm to illustrate her concept analysis of self-confidence as discussed above. (please see Figure 1).

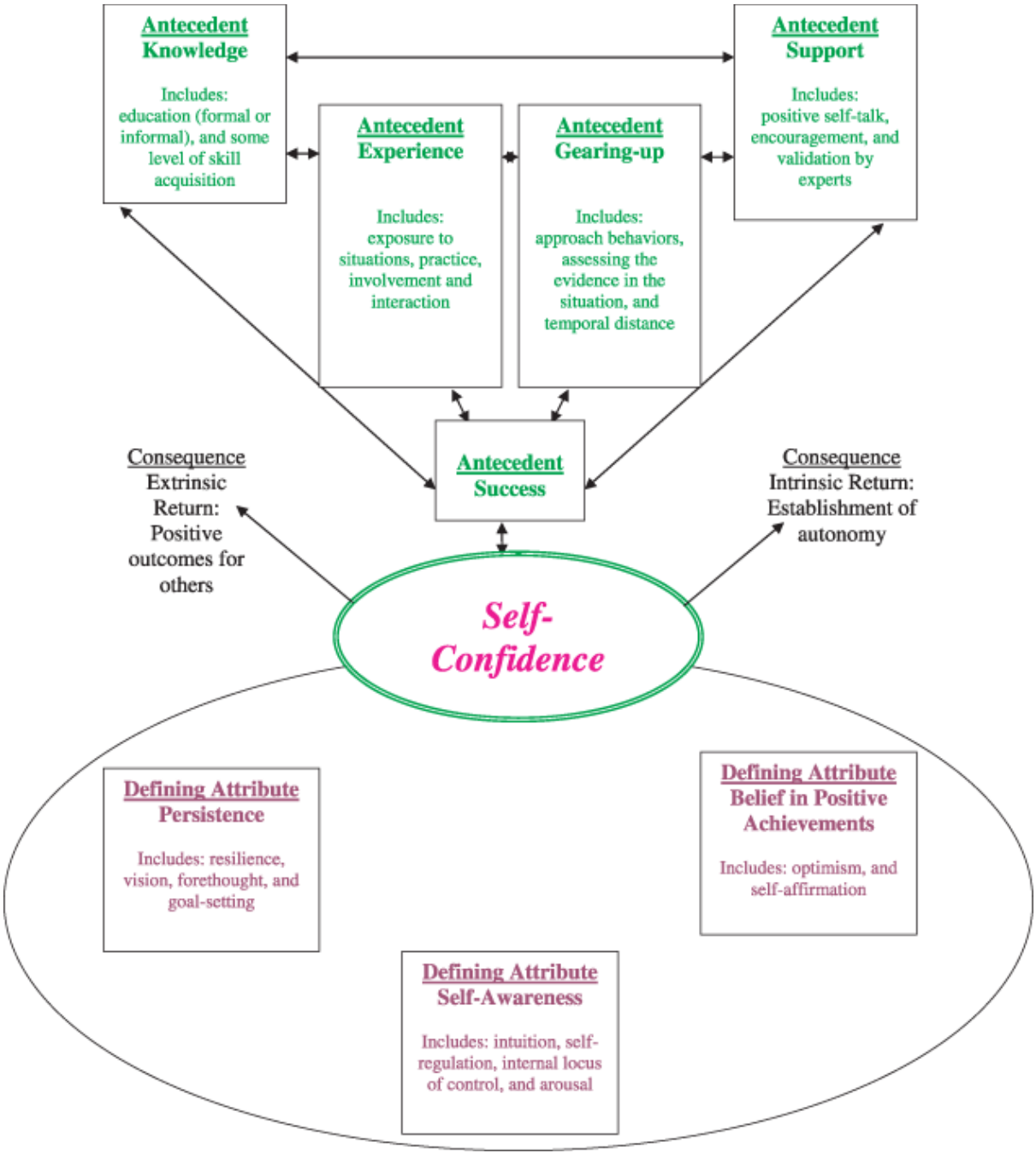

Figure 1: A model of the concept analysis of self-confidence. (White, 2009, p. 104)

Perry's (2011) concept analysis concluded that confidence is a dynamic, evolving, multi directional concept that can be positively and negatively influenced by many moderating factors. Confidence was found to inform self-efficacy which influences learning, which further influences confidence, learning and affective domain cycling on to consequences (whether positive or negative) that further influence confidence. Moderating factors, such as competence, continuously impact the cycle enmeshed in the process of evolving confidence. Perry (2011) acknowledges the impact of contextual setting on confidence levels, such as the subject or situation in question; individual intrinsic and extrinsic loci of control; external environment; and individual perceptions of efficacy. Attributes that influence self confidence in a positive and a negative way were identified. See Table 2 below.

Table 2: Positive and negative attributes of self-confidence. (Perry, 2011, p. 224)

Positive Attributes	Negative Attributes
Emotional intelligence	Narcissism
Emotional competency	Depression
Resilience	Doubt
Confidence	Uncertainty
Attitude	Negativity
Cognitive ability	
Trust	
Information	

Perry also identifies antecedents of confidence to include knowledge, perceived readiness, attitude and past performance, personal goals, role (situational), success, instructor influence, self-esteem and trust. Perry (2011) and White (2009) both recommend that their antecedents are cultured into the clinical setting environment of nursing students as they are shown to precede the acquisition of confidence /self-confidence. Perry also suggests nurturing positive attributes such as those detailed in Table 2 will benefit students, nursing programs and the patient population by producing confident nurses. She concludes that despite best efforts among educators, lack of confidence is still a problem with nursing students and that confidence ebbs

and flows with the contextual tide. Furthermore, overconfidence in the nursing student can also be dangerous and requires further exploration. (Perry, 2011).

Confidence within Nursing and Midwifery

Much of the literature around clinical confidence within nursing and midwifery focuses on education and student confidence (Brannagan et al., 2012; Center & Adams, 2013; Chesser-Smyth & Long, 2013; Dale, Leland, & Dale, 2013; Freedman & Levi, 2014; Jeffreys & Dogan, 2012; Nicolson, Burr, & Powell, 2005). These studies are now reviewed.

Student nurse confidence

Dale, Leland and Dale (2013) carried out a study in Norway exploring undergraduate student nurses' perceptions of the importance of having good learning experiences. Data were collected in a focus group interview with eight nursing students who were in the last year of their educational program. One main theme emerged from the analysis: being in a vulnerable and exposed position characterised by conflicting needs (Dale et al., 2013). Four categories were found that contributed to this theme: "aspects related to the clinical setting", "aspects related to the nurse supervisor", "aspects related to the student", and "aspects related to the student-supervisor relationship". The students highlighted their own as well as their supervisors' attitudes and competences and the importance of positive relationships. In addition, feeling welcomed, included and valued in the ward improved their motivation, self-confidence and self-respect (Dale et al., 2013).

An Irish study undertaken by Chesser-Smyth and Long (2013) investigated the development of self-confidence in nursing students undertaking the first year of their undergraduate nursing program. The design involved pre-test and post-test measurements of self-confidence, focus group interviews, a student self-evaluation questionnaire and analysis of the relevant curriculum content. Data were collected between September 2007 and April 2008 and sampling was from three cohorts of students at three different Institutes of Technology in Ireland. The investigators found that their participants' self-confidence fluctuated during the first clinical

placement and as their self-confidence developed, motivation towards academic achievement increased. Conversely, self-confidence was quickly eroded by poor preceptor attitudes, lack of communication, and feeling undervalued. They concluded that the development of self-confidence is complex and multi-factorial and that the development of self-confidence must be recognised as a central tenet for the design and delivery of undergraduate programs (Chesser-Smyth & Long, 2013).

Student and graduate midwives confidence

In addition to literature discussing student confidence in nursing, there are studies that focus specifically on the confidence of newly graduated midwives. One such study, an examination of the perception of midwives self-efficacy, was carried out by Jordan and Farley (2008). They investigated the influence that clinical preceptor behaviours had on newly graduated midwives self-efficacy in two areas of midwifery practice: the value of therapeutic presence and non-intervention in the absence of a complication. These areas were chosen because Jordan and Farley perceived they exemplified principle behaviours that distinguished the midwifery profession as unique from obstetrics. A total of 215 American midwives who had graduated between January and October 2005 were contacted by mail and asked to participate in the study; 125 midwives responded. The authors saw the use of a specifically developed measure as both a strength, for targeting relevant data, and a weakness, as its validity and reliability were uncertain. The self-efficacy scores were uniformly high throughout the study. The quantitative design of this study precluded in depth description of the phenomena, however, the results did indicate that preceptor behaviours, for example being a therapeutic presence, had a positive influence on student confidence (Jordan & Farley, 2008).

The Australian context of newly graduated midwives' confidence was examined in a study carried out over three Area Health Services in Sydney, Australia. Graduates from the three year Bachelor of Midwifery program joined those educated through the one year postgraduate route (for those already qualified as nurses) for the first time in 2007 (Davis, Foureur, Clements, Brodie, & Herbison, 2012). The newly graduated midwives were asked to rate their level of confidence (1–10) in working to the 14 National Competency Standards for the Midwife and the International

Confederation of Midwives' (ICM) definition of a Midwife. This pre and post longitudinal comparison survey was carried out during their first weeks of employment (n=19) and after the completion of their first year of practice (n=25). Midwives prepared through the undergraduate and postgraduate routes commenced their first year of practice with similar levels of confidence. The confidence of these midwives increased slightly over the first year of practice. Those from postgraduate programs were significantly more confident than those from undergraduate programs on four competencies after the first year of practice. Participants' self-reported confidence in working to the ICM Definition of a Midwife was low. The authors conclude that the midwifery profession requires strong, confident midwives and ways to achieve this must be explored. Davis and colleagues acknowledge that there is room for improvement in the way newly graduated midwives are supported to build their confidence over their first year of practice, and suggest further research to identify the needs of newly graduated midwives to determine how to best support them to develop as strong and confident practitioners through their first year of practice (Davis et al., 2012).

Registered midwives' confidence

In addition to studies that examine the acquisition and perception of clinical confidence within students and newly qualified midwives, the author also sought literature around how experienced midwives viewed confidence within their profession, particularly when it came to continuous professional development and acquisition of new skills. The Advanced Life Support in Obstetrics (ALSO) course is an internationally recognised inter-professional course to support health professionals to develop and maintain the knowledge and skills to manage obstetric emergencies. Walker, Fetherston, and McMurray (2013) investigated changes in confidence and perceived changes in the knowledge of doctors and midwives to manage specific obstetric emergency situations following completion of an ALSO course in Australia. A prospective repeated-measures survey design was used to survey 165 course attendees from four Australian states pre-course and post-course and at six weeks (n=101). There was a significant improvement in confidence and perceived knowledge of the recommended management of all 17 emergency situations immediately post-course (p<0.001) and at six weeks post-course (p<0.001)

when compared to pre-course levels for both groups of health professionals. However, a significant decrease in knowledge and confidence for many emergency situations from immediately post-course to six weeks post-course ($p<0.05$) was also observed in both groups. The authors concluded that completion of the ALSO course in Australia had a positive effect on the confidence and perceived knowledge of doctors and midwives to manage obstetric emergencies. However, there needs to be some means of reinforcing the effects of the course for longer term maintenance of knowledge and confidence.

Another example of American research investigating confidence levels in midwives undertaking new skills is presented (Jacoby & Smith, 2013). Due to an increase in the number of women who emigrate to the United States (US) from countries that practice female genital mutilation (FGM), midwives were offered the option to expand their knowledge and increase confidence in caring for women who have experienced FGM, also known as infibulation. An education program was developed that included didactic information, case studies, a cultural roundtable, and a hands-on skills laboratory on deinfibulation and repair. Eleven certified nurse-midwives (CNMs) participated in this pilot study. Participants completed a measure-of-confidence survey tool before and after the education intervention. The midwives reported increased confidence in their ability to provide culturally competent care to immigrant women with infibulation when comparisons of pre-education and post-education survey confidence logs were completed. Following the education program and the knowledge gained from it, these midwives were more confident about their ability to perform anterior episiotomy and to deliver necessary care to women with FGM in a culturally competent context. The authors concluded that this education program should be expanded as more women who have experienced infibulation immigrate into the United States (Jacoby & Smith, 2013).

The importance of midwife confidence is highlighted in a study investigating obesity in pregnancy in Australia (Biro et al., 2013). The issue of obesity is becoming more common in pregnant women and a concern for healthcare providers due to the association with poorer maternal and perinatal outcomes. A cross sectional survey was carried out to examine midwifery clinical practice for obese pregnant women. The survey was distributed to members of the Australian College of Midwives on-

line and 336 responded. Midwives were asked about their confidence to counsel obese pregnant women, and other issues relating to their use of a clinical guideline, evidence based practice training and education about obesity were explored. Data was summarised using descriptive statistics. The study highlighted that the midwives who used the clinical guidelines were more likely to report adequate/comprehensive education and training and greater confidence to counsel obese pregnant women. The study concluded that midwives need continuing professional development in communication and counselling to more effectively manage the care of obese pregnant women. A second recommendation was that the universal use of a clinical guideline may have a positive impact by helping midwives to base early care decisions on clinical evidence (Biro et al., 2013).

The confidence and ability of midwives and nurses to conduct research was the focus of a small qualitative study in Western Australia (WA) (Chapman, Duggan, & Combs, 2011). The study evaluates a hospital based clinical scholar program designed to build the capacity of nurses and midwives to conduct research and evidence-based practice within the hospital. It consisted of six teaching days and four hours per month release from clinical duties for proposal preparation. At the end of the program the four remaining participants were asked to complete a short anonymous questionnaire. The answers were analysed using standard processes of qualitative analysis. The findings highlighted that, while the participants considered that they were more knowledgeable and confident to conduct research, they still required support (Chapman et al., 2011).

Midwives confidence in the skills required for postnatal care is the subject under investigation in a national survey carried out in Australia in 2011-2012. A total of 443 midwives responded and data were analysed in SPSS. The majority of midwives surveyed reported working in roles that included postnatal care. Midwives reported that they had the necessary skills to provide care for women with complex social issues. However they reported low levels of confidence in specific postnatal skills including: supporting maternal-infant attachment; and reading infant cues such as tired signs; supporting breastfeeding with women with unwell or special care babies; using the Edinburgh Postnatal Depression Scale (EPDS); screening for domestic and family violence (Kruske, Schmied, & Homer, 2013).

Midwives' perceived level of competence and confidence to undertake perineal repair was the main outcome measured in a quasi-experimental pre–post intervention case study. The study included: six National Health Service (NHS) consultant/midwifery led Trusts in South East England between December 2002 and 2006. A total of 145 midwives participated. The study showed that the educational programme in perineal repair made a significant difference to the midwives' perceived level of competence and confidence when assessing and managing perineal trauma and repair. The authors noted that competency and expertise are complex phenomena and the data provided greater insight into the complex nature of workplace learning alongside the multiple factors influencing clinical decision-making such as staff shortage, time constraints and inadequate numbers of midwives who are able to instruct, supervise and assess competency in perineal repair (Wilson, 2012).

The studies discussed above have shown research investigating the importance and influence of clinical confidence when carrying out a range of clinical midwifery skills. The clinical skill under investigation in this study is that of supporting women who have chosen the option of water birth. As presented earlier an electronic search of Cumulative Index to Nursing and Allied Health Literature (CINAHL), Cochrane Library, Proquest and Science Direct was performed using the key words 'confidence', 'self-efficacy', 'midwives' and 'water birth'. This search did not identify any research articles that discussed the phenomenon of confidence from the perspective of the midwife supporting the woman who had chosen to water birth. As discussed previously in chapter one, Byrne (2006) suggests that a lack of confidence in water birth may lead midwives to employ a form of protective steering whereby women are guided towards making choices that are not what they ideally want but serve to maintain the clinician's comfort. Kirkham (2004) examined the midwife's role in facilitating informed choice. She suggests that the midwife feels she must ensure the woman makes the right choice for her care. Insufficient confidence in supporting water birth may contribute to the midwife employing protective steering to guide the labouring woman back into the birthing room and away from the birthing pool thus denying the woman the birth option she most desired.

British born natural childbirth activist and author on childbirth and pregnancy Sheila Kitzinger wrote an influential article in a midwifery journal (2000) highlighting that women in the UK are often told that they are unable to use a birth pool due to adequately skilled midwives not being on duty. The author states that one problem contributing to this is that midwives have limited opportunities to gain the skills and knowledge required to confidently assist women with water births. For this reason midwives who are competent and confident to support water birth are an essential element in the deliverance of this birthing option for the women of WA. The conceptualisation and development of confidence amongst midwives supporting this birthing option, however, remains unclear.

Water birth literature review

A review of the literature around confidence has shown that it is essential to have good knowledge and understanding of the phenomenon one desires to become confident in. Given the chosen context for this study is water birth, an investigation of the background literature pertaining to the benefits and safety aspects of water birth now follows, along with evidence regarding water birth from the perception of the midwife.

Benefits of water immersion to women

The requirement for a competent and confident midwifery workforce to support water birth is necessary because, as previously explained, WA women desire this option. The evidence around the benefits relating to water birth around maternal satisfaction, pain relieving properties and relaxation are now explored from the perspective of the birthing women.

Maternal satisfaction

Water birth is a particularly attractive option for childbearing women who are keen to experience a woman centred non-interventional birth (Richmond, 2003). This finding was supported in a semi-structured questionnaire completed by 189 mothers who had experienced water birth in the United Kingdom. Richmond's (2003) study

revealed that women desired a water birth as it offered a drug free option that was perceived as less painful. Participants in this UK study also shared how they wanted a gentle birth for the baby and thought water birth seemed the appropriate medium to achieve this goal. These UK women in Richmond's (2003) study commented on how they felt more in control of their environment in water, and particularly liked the relaxing and calming quality of the water; and the physical support it offered including the opportunity of being able to hold their babies immediately after birth.

Richmond's (2003) findings noted above concur with those of Baxter (2006), another midwife researcher who carried out a clinical audit and client satisfaction survey in the UK. Her project included 331 women over a three year period that chose to use the birthing pool at a midwifery led birthing centre. This initiative resulted in a total of 229 women participating in the study who birthed in the pool. The data was used to compare clinical outcome between 'pool users' (who did not birth immersed in water) with 'pool births'(who did birth immersed in water) in addition to maternal satisfaction. Baxter's (2006) work noted how women who had a water birth progressed instinctively through labour in an atmosphere that was calm, secure and unrushed contributing to an increase in maternal satisfaction. The author of the paper does, however, acknowledge the positive impact that continuity of carer can have on the birthing experience which was the case for these UK women who achieved a water birth. Therefore, the continuity of carer aspect could have also influenced the positive birth experience, which is supported by an Australian study (Homer, 2008). The mystique of water birth, the serenity of birthing in a warm pool of water with lights dimmed, and the sense of empowerment and autonomy are also emphasised by other midwife proponents of this option (Garland, 2011; Mackey, 2001; Miller, 2009; Newburn & Singh, 2003) . Most of this work represents retrospective, narrative reports of individual or institutional experiences from investigations carried out mainly in a naturalist paradigm.

The pain relieving properties of water immersion during labour

The most frequently reported benefit of the use of water for labour and birth is the finding that the use of water acts as a natural analgesic. This perception is supported by Melzack and Wall (1988) who provide a physiological rationale to explain why

water may reduce discomfort by utilising the gate control theory of pain. This theory explains that impulses from sensory nerves in the skin travel to the spinal cord more rapidly than impulses conveying pain. Therefore, the heat and pressure applied from being immersed in warm water can excite the sensory nerves in the skin of the lower back to inhibit the feeling of pain (Melzack & Wall, 1988).

The analgesic effect of water is supported by Cluett and Burns (2009), who published a systematic review of the literature relating to immersion in water in labour and birth as part of a series of reviews into pain management in labour. This paper was published by the Cochrane Collaboration, which provides systematic reviews of primary research in human health care and health policy and is internationally recognised as the highest standard in evidence-based health care (Tovey, 2014).

The Cochrane review concerning immersion in water for labour and birth mentioned in the previous paragraph comprises eleven randomised controlled trials (RCTs) involving 3,146 women (Cluett & Burns, 2009). The objective of this review was to assess the effects of water immersion during labour and/or birth on maternal, fetal, neonatal and caregiver wellbeing. The review addresses the benefits and risks of immersion in water compared to no immersion during each stage of labour. The combined data from six trials (n=2,499 participants) reported immersion in water during the first stage of labour demonstrated a significant reduction in the incidence of epidural/spinal analgesia compared to controls, which was the only significant finding from the review (Cluett & Burns, 2009). The other findings from this systematic review reported no difference in the number of assisted births, perineal trauma, maternal and neonatal infection, Apgar scores <7 at five minutes or neonatal admissions to a special care facility. These findings are important as they highlight that immersion in water does not increase maternal or neonatal morbidity. Cluett and Burns (2009) also noted that it is difficult to identify whether the reduction in spinal/epidural analgesia was due to the analgesic effects of water, or other associations of water such as continuity of carer in labour, which has also been shown to reduce epidural rates (Homer, 2008) or relaxation which is also believed to promote the body's natural endorphins (Odent, 1983).

The analgesic effect of labouring in water was also investigated by Zanetti-Daellenbach et al. (2007) in their prospective observational study from Switzerland. They reported a significant reduction in the use of pharmacological analgesia when comparing a group of woman who had birthed in the water with two different control groups. Women in one of the control groups had normal vaginal births on land having laboured in water, and those in the second control group each had a normal vaginal birth without any water immersion. This study was carried out over a four year period in a university hospital and included 514 low risk participants. The investigators found no differences in neonatal outcomes but significant reductions in levels of analgesia and length of labours in the intervention group. Similarly, Geissbuehler and Eberhard (2000) undertook a prospective observational study of 7,508 births from 1990 until 1997. They compared the outcomes of 2,014 women who laboured and birthed in water with similar participants who birthed on a bed or birthing stool. The women who birthed in water required less analgesia and had a lower incidence of perineal trauma and blood loss at birth. Both studies took place in Switzerland and authors acknowledge weaknesses in the generalisability of findings across counties due to characteristics of the Swiss maternity population being different from other maternity demographics, in that the culture is one of natural child birth with low medical intervention whenever possible.

Another study on water birth, this time from the southern hemisphere, was conducted by Maude and Foureur (2007) who undertook a small qualitative study involving five women in New Zealand. Data were collected via unstructured interviews lasting between 45-85 minutes. This method provided rich narratives of the five women's perception of their labour pain and how they had coped with it. Participants did not report feeling less pain in the water than out, but they believed their ability to cope with the pain was increased while immersed in water. In support of Maude and Foureur (2007), Cammu, Clasen, Van Wettere, and Derde (1994) found in a quantitative study that the use of immersion in water during labour increased women's ability to cope and relax between contractions. This RCT was undertaken in Belgium with 110 participants of similar age, weight, cervical dilation and pain sensations (Cammu et al., 1994). Labour pains were assessed by means of a visual analogue scale and participants were asked to complete a questionnaire regarding their experiences of immersion in water during labour in the first few days of the

postnatal period. Of this group of 110, 54 were randomised to the warm water intervention during labour while the remaining 56 acted as controls and were not offered water immersion. The actual pain scores were not significantly different between the groups; however 90% of the women randomised to water immersion stated that they would like to use it in a subsequent labour; this group also reported other benefits from using water such as relaxation, the ability to move, privacy and consequently the ability to focus and cope.

Not all studies relating to the analgesic effects of immersion in water during labour and birth demonstrate a statistically significant difference. An RCT from South Australia conducted by Eckert, Turnbull, and MacLennan (2001) could find no analgesic benefits to the woman labouring in water. The objective of this trial was to compare immersion in warm water during labour with pharmacological pain management for a range of clinical and psychological outcomes. This trial of 274 pregnant women experiencing no pregnancy complications was conducted at a maternity tertiary referral centre in Adelaide (Eckert et al., 2001). Women in labour were randomised to an experimental group who received immersion in a pool or to a non-immersion group who received routine care (i.e. no immersion in water). The number of women requesting pharmacological analgesia during labour and birth was similar for both the experimental and control groups (85% versus 77%). Eckert and colleagues (2001) makes reference to the fact that from the total of 274 participants, 40 women who were allocated the water immersion option declined to get into the birthing pool and 36 women who were randomised to the land option withdrew from the study so they could use the birthing pool. In fact findings from this study suggest that the water birth contingent experienced less satisfaction than the land birth group. However, this study highlights the ethical issues of allocating women to interventions that they may not want to use, possibly explains lower satisfaction scores and calls into question the validity of the results.

Relaxation

Articles published predominantly by midwives' suggest that being immersed in water during labour can promote maternal relaxation and decrease anxiety. Baxter (2006), a midwifery team leader from a midwifery led birth centre in the UK, carried

out a clinical audit and customer satisfaction survey on 331 women who used the birthing pool between 2001 and 2004. The introduction of the birthing pool to the unit was responsible for a 35% increase in the unit's overall birth rate. Baxter identifies the main themes for woman remaining in the pool was their increased feelings of relaxation. The relaxing properties of water were further discussed in a small qualitative study that was referred to earlier in this chapter by Maude and Foureur (2007); this study's sample comprised five women from a large urban region in New Zealand who used water for labour and birth either at home or in hospital. The study employed an interpretive design using audio-taped conversations as the method of data collection and a thematic analysis of the women's stories. The authors describe how the all-encompassing warmth associated with being enveloped in warm water cradled, supported, relaxed, comforted, soothed, sheltered and protected the women (Maude & Foureur, 2007). Richmond (2003) concurred with these findings that water immersion in labour increases levels of relaxation: in her study of five birthing centres in the UK, 189 mothers who had experienced water birth completed a questionnaire about their experiences. The women reported feeling more in control of their environment in water, and described that they particularly liked the relaxing calming quality of the water, the physical support it gave them and being able to hold their babies immediately after birth.

There are arguments to suggest that the relaxation afforded by water immersion is related to increased oxytocin release and uterine contractions (Medforth, 2011; Odent, 1983). Odent provided experiential evidence about how women who entered the birthing pool in established labour would have a fully dilated cervix within one to two hours. He attributed this rapid progress to a reduction in the secretion of 'stress' hormones catecholamine and noradrenaline, the production and maintenance of which is a key factor in normal mammalian birth (Odent, 1983). These results are supported by Zanetti-Daellenbach et al. (2007) whose study on the effect of water immersion on obstetrical outcomes found a statistically significant difference in the length of the first stage of labour in the water immersion group compared to the non-immersion group. They also attributed these findings to maternal relaxation and the same hormonal effect that was suggested by Odent. This theory concurs with the findings of Cluett, Pickering, Getliffe, and St George Saunders (2004) who conducted a randomised controlled trial in England in which they compared

labouring in water with standard augmentation for dystocia in the first stage of labour. A total of 99 primigravidae who experienced a delay in the first stage of labour diagnosed by cervical dilation of less than 1cm per hour when in active labour participated in this UK study. Of these participants 50 women were allocated to a standard augmentation group (amniotomy and intravenous oxytocin) and 49 to the water immersion group. Cluett et al. (2004) reported a similar length first stage of labour for both groups. The water birth group also expressed a greater satisfaction with freedom of movement and privacy in labour although overall levels of satisfaction were similar for both groups.

Duration of labour

Water immersion was also shown to decrease the duration of labour in a retrospective case-control study of primigravidae carried out in England. A total of 301women who laboured immersed in water were matched with 301 low risk women of similar age and gestation, who had a spontaneous vaginal birth on land. The authors found that the water birth group's duration of labour was on average 90 minutes less than their counterparts in the control group (Otigbah et al., 2000). However the largest study on water birth in an Australian setting found no differences between the length of the first and second stages of labour when comparing water birth to land birth. This retrospective comparison study was carried out over a ten year period (2000-2009) by Menakaya, Albayati, Vella, Fenwick, and Angstetra (2013) and 438 women who birthed in a secondary level obstetric unit in Sydney, New South Wales. The outcome of 219 women who had laboured and birthed in water were compared with those of women with a similar risk profile who had a land birth. The study compared maternal age and gestation at birth, length of first and second stages of labour, total estimated blood loss, birth weight and length of hospital stay between the water birth and non-water birth groups (Menakaya et al., 2013). No significant differences were found in these outcomes. In addition, perineal trauma and neonatal Apgar scores were also compared and while more women in the water birth group had an intact perineum (40%, n=88 compared to 31%, n=68 in the non-water group), more water born babies had an Apgar score of 7 or less at 1 minute compared to land births. However, at 5 minutes there was no difference in Apgar scores between the groups. There were no significant differences between the

two groups in this study, however outcomes relating to pain relief and the use of pharmaceutical analgesia were not addressed (Menakaya et al., 2013).

Water birth and the baby

For midwives to feel confident in a clinical skill it is important that they feel that the practice is safe for both the mother and the baby in their care (Perry, 2011). For this reason it was important to review all the literature relating to the wellbeing of the neonate born into water.

The largest study into the safety of birth immersed in water from the perspective of the neonate was carried out by Gilbert and Tookey (1999). This research took the form of a survey of all consultant paediatricians and of all NHS maternity services in the UK between April 1994 and March 1996. During this period a total of 4,032 babies were born in water. No perinatal deaths could be attributed to birth in water, however two babies (0.05% of the sample) were treated for water aspiration. The authors concluded that perinatal mortality is not substantially higher in babies born into water than it is in babies born conventionally (Gilbert & Tookey, 1999).

Neonatal outcomes were also addressed in the Cochrane review into immersion in water in labour and birth referred to earlier (Cluett & Burns, 2009). This systematic review of the literature relating to immersion in water in labour and birth compared many different outcomes for babies born into water to those born on land; these include an Apgar score of less than seven at five minutes, cord blood pH measurement immediately after birth (arterial and venous cord blood), admission to special care baby unit/neonatal intensive care unit and infection, including markers of infection such as pyrexia and raised white cell count. The results of this review showed no increased incidence of abnormal fetal heart patterns or meconium liquor from the fetus of a woman labouring in water. No significant differences were found between Apgar scores of less than seven at five minutes, cord pH immediately after birth, admissions to special care baby units or infection rates among the neonates born into water. The authors concluded that there is no evidence of increased adverse effect to babies born in water, however they also state that further research is needed.

A more recent focused review considered the five most common concerns raised against water birth by Australian maternity users (Young & Kruske, 2013). Three of these five concerns related to the neonate: water aspiration, infection and thermoregulation. The findings from this Australian review confirmed that these concerns were not supported by the evidence and are controlled for with appropriate policies, guidelines and practice. However, despite the lack of evidence to support concerns for the safety of the neonate born into water, some paediatricians remain sceptical. Grunebaum and Chervenak (2004) for example, published an opinion paper in the Journal of Perinatal Medicine that suggested that water birth was not in the best interests of the neonate. The American College of Obstetricians and Gynaecologists and the American Academy of Paediatrics have also published a joint committee opinion that refutes the evidence that immersion in water is of any maternal or neonatal benefit and that safety and claims that its safety has not been established. They recommend that water immersion in the second stage of labour should be considered an experimental procedure and only performed within the context of an appropriately designed clinical trial with informed consent (American College of Obstetricians and Gynecologists, 2014).

Water birth from the perspective of the midwife

Thus far this literature review has revealed that considerable evidence relating to water birth is concerned with issues of safety and obstetric outcome and with the labouring woman's perspective and experience. In 2011, international water birth consultant Dianne Garland noted a dearth of evidence focusing on midwives' and other carer's views and perceptions towards water birth. In response to this evidence gap Garland (2011) carried out a survey of 645 midwives, students, doulas, childbirth educators, medical practitioners and other carers. The objective of the project was to investigate the views of birth attendants who cared for women who had chosen to labour and/or birth immersed in water; the purpose of the investigation was to gain insight into how clinicians attained their existing knowledge about water immersion in labour. The questionnaire consisted of a multiple choice design, and Garland (2011) acknowledges that this short opportunistic survey was not a research study or an audit of practice but an initial inquiry. The respondents were mainly UK

midwives and students who worked for the National Health Service in a hospital setting. The questionnaires were made available to participants at water birth study days run by Garland, on-line at her website or posted out on request. Garland's (2011) design did not allow for any in depth analysis or individual perspectives as no open-ended questions are included. The survey's findings highlighted that the majority of birth attendants viewed water birth as 'beautiful/brilliant' (55.5%), some found it to be 'challenging' (21.7%), and others perceived it to be enlightening (11%). When asked to describe their views on the benefit of water birth for mothers, most of the respondents were positive with just over half (58%) choosing words like 'relaxing', 'calm' or 'peaceful'. Some birth attendants felt the main benefit was pain relief (15%) while the same number (15%) identified the fact that the woman felt she was in control of her birthing experience as the primary benefit. The main maternal disadvantages were viewed by the birth attendants as 'not enough trained midwives' (37%), and 'where the pool was not available' (32%). When birth attendants were asked to consider what advantages the use of water might have for them as care providers, half chose 'supporting the woman's choice' (50%). Other options included the acquisition of new skills (16%), empowering women (14%) and being able to offer one to one care (10%).

Finally, Garland's (2011) study reported the main disadvantages of water birth, and respondents were given four options in this regard: 'back problems' (29%), 'staffing issues' (29%), 'concerns over colleague support' (17%) and 'learning new skills' (2%). Interestingly 24 % of respondents chose not to answer that question which may indicate that they did not feel any of those options applied to them and the survey design did not allow for alternative suggestions which are limitations of this study. Garland (2011) concludes that care givers perceive the three biggest issues relating to water birth were 'untrained midwife', 'poor colleague support' and 'availability of the pool'. Garland reported that in her experience these reasons were often used as excuses for not being able to support a woman in water. Considering the captured sample of the survey were mainly midwives already motivated enough towards water birth to attend a water birth education day, it is questionable whether these findings can be generalised to the broader midwifery population (Garland, 2011).

Around the same time as Garland's results were published, Russell (2011) reported an investigation into the views of UK labour ward midwives on water birth in a critical discourse analysis. This critical discourse analysis on UK midwives' views of water birth resulted from a total of five unstructured interviews (35-60 minutes) with labour ward matrons, a consultant midwife, a labour ward manager and clinical practice facilitator; additional data were collected from three focus groups of 11 clinical midwives over an 8-month period (year not specified). Actual midwifery practices, the social ordering of the water birth discourse, obstacles to water birth, dominant group interests, and solutions to the identified obstacles emerged as themes from the data analysis. The key obstacles to water birth were found by Russell (2011) to include co-ordinators' priorities, midwives' negative attitudes, high workloads, and lack of institutional support for this type of care.

In addition, findings from this same discourse analysis reported above revealed that high workloads made it difficult for practitioners to provide one-to-one care for women in labour and offer alternatives to standardised midwifery care (Russell, 2011). Water birth was viewed as more labour intensive and, therefore, more likely to interfere with the smooth running of the labour ward. Staying in the pool room with labouring women for long periods was viewed as "selfish" by some hospital midwives. Others felt that being able to stay with labouring women for long periods was a "luxury" rather than the norm. Participants in this UK study felt that most labour ward midwives lacked the necessary skills to facilitate water birth because of limited opportunities to witness or learn about this type of practice. The author felt that this may explain why many midwives perceived that caring for women in water was difficult and more time consuming than other types of practice. A major concern among participants was how they might manage obstetric emergencies in water.

Finally, Russell (2011) concluded that hospital water birth practice is dependent not only on the availability of equipment and midwifery knowledge, but also on the philosophy of care adopted by the organisation. Interventions to improve the practice and availability of water birth were deemed more likely to succeed if supported by midwifery managers, championed by coordinators, and led by labour ward practitioners. The recommendations from this UK study included 1) promoting organised water birth workshops for all midwives with the aim of improving

midwives' knowledge, skills, and confidence; 2) appointing a water birth midwife coordinator to support individual midwives, disseminate good practice, and raise awareness of the benefits of this type of care; 3) improving pregnant women's knowledge of this type of care by providing information (a DVD) at booking and 4) offering antenatal water birth classes on the labour ward.

American researchers more recently investigated the experience and perceptions of American certified nurse-midwives in Georgia about water birth and their level of support for establishing water birth in their work setting (Meyer, Weible, & Woeber, 2010). A survey was distributed to a convenience sample of 119 certified nurse-midwives from the American College of Nurse Midwives' Georgia chapter (similar to a State or Territory branch of the Australian College of Midwives) by e-mail; 53 (45%) of those invited to complete the survey responded. Forty of the midwives surveyed had supported a woman labour in water, and 21 had witnessed a water birth. Out of the 53 participants 49 had some exposure to water birth through self-education or through clinical practice. More than half (n=28) supported the incorporation of water birth in their workplace setting. Respondents were asked to rate their concern on 11 issue categories that may be experienced during a water birth on a scale of 1 to 5, with 1 being 'no worry' and 5 being 'severe worry'. The most concerning factors were found to be maintenance of water temperature, physical stress on the midwife, and inability to see the perineum (Meyer et al., 2010). Respondents were also asked about the perceived benefits of water birth on a five-point scale, with 1 being 'not a benefit' to 5 being a 'major benefit'. The main benefits reported were 'mothers are more relaxed', 'decreased use of analgesia by mother' and 'mothers had a more positive birth experience'. Meyer and colleagues (2010) conclude that these American CNMs had exposure to water birth and generally supported the expansion of water birth in their place of practice. Certified nurse-midwives were not moderately or severely worried about any of the disadvantages of water birth.

Another American comparative descriptive survey was conducted to determine nurse-midwives' perceived barriers to the use of water birth (Stark & Miller, 2009). The authors acknowledged that while water birth was seen to be effective in relieving pain, reducing anxiety, encouraging relaxation, and promoting a sense of control, it

was rarely used during labour. Participants were recruited through a booth at the Women's Health, Obstetric, and Neonatal Nurses [AWHONN]) conference in June 2007. They were asked to complete the questionnaire if they had provided care in labour to a woman in the last twelve months. The instrument used to measure the nurse-midwives' perception consisted of a 30 item survey of statements that might be regarded as barriers to the provision of water immersion during labour and was developed and validated for this study. Participants were asked to respond to each question using a Likert scale that ranged from 0-4. (0=strongly agree, 1=mostly agree, 2=neither agree nor disagree, 3=mostly disagree, 4= strongly disagree). This data was correlated along with demographic and environmental variables, such as length of registration and the caesarean section rate at participants' work places.

Stark and Miller (2009) found that larger maternity facilities such as tertiary hospitals had high caesarean section and epidural analgesia rates and lower rates of water birth. Nurse-midwives working in small community maternity facilities with high water immersion rates perceived barriers to this option were significantly lower compared to large hospital facilities with low water birth rates. Further, there were fewer barriers to the use of water when the facility was staffed by nurse/midwives rather than General Practitioners and obstetricians. This American survey's findings reported similar limitations to the previous survey by Garland (2011) in that a convenience sample of birth attendants were used that may not be representative of the broader midwifery population. The nurse/midwife participants in this American study (Stark & Miller, 2009) were well educated and actively involved in professional development. Another limitation of Stark and Miller's (2009) study was that the survey instrument developed for the study was new and validation and reliability testing of the instrument with other samples was recommended.

Summary

This chapter has confirmed that confidence is a complex and multifaceted phenomenon that has been explored comprehensively through the realms of psychology. Within health care, clinical confidence has been shown as an attribute that is important for professionals such as nurses and midwives to possess. The review also highlights how a lack of confidence from the care provider elicits

concerns of safety as this can influence clinical judgement as well as patient comfort. Research carried out into clinical confidence in relation to midwifery skills has proven useful for education and policy development, however research pertaining to the phenomenon of confidence in midwives facilitating the clinical skill of supporting water birth is not available. This is the gap in knowledge that this study aims to address.

The literature relating to water birth has also been reviewed in this chapter, in particular the maternal benefits and the safety aspects for women and babies have been contemplated. This evidence is important to consider as without an in-depth knowledge and appreciation of the effect of water birth, confidence in this skill could not be achieved. The majority of the available evidence supports enabling suitable women to give birth in water if they wish.

To conclude this chapter, studies that feature water birth issues from the perspective of the midwife supporting women in this birthing option were reviewed and found to highlight a dearth of evidence from this perspective. This study aims to address this gap in knowledge by exploring the phenomenon of confidence from the perspective of midwives supporting water birth in public health services in WA. The next chapter will present how a modified grounded theory methodology was selected as the best method to address the objectives of this study.

CHAPTER THREE – METHODOLOGY

Introduction

This chapter presents how a modified grounded theory study was conducted into how 26 midwives working in Western Australia (WA) perceive their professional confidence to support women who choose the option of water birth. The chapter commences with an overview of the naturalistic and positivist paradigms and rationale for the qualitative approach used in this study. An explication of the researcher's beliefs and a statement of intended limitations are outlined. The research objectives are then identified and the research methods are outlined under the conventional headings of setting, sampling and recruitment, ethical considerations, data collection and data analysis.

The dominant paradigms for health research

The purpose of research is discovery (Baxter, 2006). Research represents scientific inquiry, the discovery of knowledge about empirical experiences and is a foundation for decision making around healthcare (Norwood, 2010). It is the researcher's role to understand and be able to explain to others how they have sought and achieved discovery about a situation under their investigation (Polit and Beck, 2010). Intrinsic to the explanation is the lens through which the researcher views the world (Rees, 2011). A research paradigm is a school of thought or a framework for thinking about how research ought to be conducted to ascertain the truth (Hesse-Biber and Leavy, 2006). Several research paradigms exist, however two dominate in health care: The traditional or positivist research paradigm wherein research is almost exclusively conducted using quantitative methods and the interpretivist or naturalist paradigm, with subscribers who predominantly utilise qualitative methodologies (Hesse-Biber and Leavy, 2006).

Each of the research paradigms has its own merits and the choice to subscribe to one or the other is dependent on the researchers' view on which will best address the gap in knowledge in the proposed study. The researcher must define the objectives of the study and determine the most suitable and appropriate method to address the research

questions or purpose (Rees, 2011). In the case of this study a qualitative methodology was ideally suited to address the gap in knowledge and resulting research purpose. Justification for this choice is now presented.

The positivist paradigm

Researchers who subscribe to what is commonly known as the traditional positivist paradigm seek to count and measure data using quantitative (that is, mathematical and statistical) methods. The discovery that is uncovered is thus grounded in mathematical logic. The objective, pure picture of phenomena that results from this approach is prized as highly valid and reliable (Streubert and Carpenter, 2011) and so researchers who can work in this paradigm are fortunate because high reliability and validity are held in great esteem. However, this traditional research paradigm can only be used where the variables that affect the work can be identified, isolated and relatively precisely measured and possibly, but not necessarily, manipulated (Speziale and Carpenter, 2007).

Humans are affected by numerous interacting variables such as fatigue, illness and stress, but in order for these variables to be isolated and measured valid and reliable instruments must be developed for that measure. In addition, it is often not possible or ethical to hold some variables constant while manipulating others (Rees 2011). Nevertheless a quantitative approach can still lend itself to research involving human behaviour if the data is numerical and if the sample is sufficiently large for the effects of individual differences to be effectively measured (Liamputtong, 2013). An example would be de Souza Caroci da Costa and Gonzalez Riesco's (2006) randomised controlled trial comparing a 'hands on' versus 'hands poised' technique for the birth of a baby's head as an intervention to decrease perineal lacerations during birth. In this study 70 women were randomised to two groups and the outcomes on the perineum in relation to intactness and lacerations were compared. The results of this study showed no difference between intactness and lacerations with either technique. This is extremely useful knowledge for maternity care providers to guide their clinical practice during the second stage of labour. However, this quantitative methodology does not give insight into the personal experience of the women who were the subjects of this intervention. It is possible to hypothesise

that it might be uncomfortable for the woman to have the care provider's hand on her perineum at the moment of birth, or that the requirement of placing a hand on this area affected the woman's ability to adopt a preferred position while birthing but these questions are not addressed within the limitations of a quantitative study which focused upon a specific outcome variable such as perineal trauma in this example.

Research set in the positivist paradigm is used to predict what is happening and the statistical chances of something happening in the future. It cannot provide subjective evidence on the human experience of a research enquiry, nor can it highlight the existence of anything else that may be subjectively relevant, although answers to such questions may be provided by an established theory within which the research fits (Polit and Beck, 2010).

The interpretivist paradigm

In contrast to the positivist worldview, the interpretivist stance is to describe and/or explain the facets of phenomena that are subjectively experienced by human beings. Haverkamp and Young (2007) suggest that qualitative researchers typically approach inquiry with the goal of understanding rather than verification. The emphasis is on exploration and insight rather than experiment and the mathematical measurement of variables (Corbin and Strauss, 2008). Research set in the qualitative research paradigm can address questions about how and why something is happening from the perspective of those undergoing the experience (Streubert and Carpenter, 2011). It can also address questions about what is happening in a wider context resulting in a proposition or hypotheses that may then be tested using a quantitative design. The conclusion is in the mind of a reader, based on the data provided in the stories of the participants and supported by the researcher's power of argument.

Qualitative researchers must be true to the data and reflect what the participants have shared (Rees 2011). The findings also must be viewed within the study context (i.e. WA in this study). If you were to conduct this same study in the United Kingdom (UK) findings could differ. It is therefore important for those who work within a qualitative research paradigm to present their findings using concepts of trustworthiness so the reader is assured that the findings are representing what the

participants have shared (Liamputtong, 2013). Within a qualitative paradigm research rigour is assessed through the criteria of credibility, transferability, dependability and confirmability. These terms are used to determine whether the research is genuine, reliable or authoritative, and to testify that the research findings can be trusted (Chilisa, 2012). Table 3 shows examples of criteria and strategies for ensuring rigour in qualitative research. Application of these criteria to this study will be demonstrated later in this chapter.

Table 3: **Examples of criteria and strategies for ensuring rigour in qualitative research** (Liamputtong 2013, p 35)

Rigour Criteria	Criteria for Rigour	Research Strategy	Techniques to Ensure Rigor
Credibility	Truth value	Fieldnotes/memo Digital recording Thematic log Auditing transcript	Purposeful/theoretical sampling Negative/deviant case Constant comparison Member checking Triangulation Audit trail
Transferability	Applicability	Data display Simultaneous literature review	Purposeful/theoretical sampling Thick description
Dependability	Consistency	Fieldnotes/memo Digital recording Thematic log Auditing transcript Researchers story reflexivity	Negative/deviant case Member checking Triangulation Audit trail
Conformability	Neutrality	Fieldnotes/memo	Audit trail

To conclude, both qualitative and quantitative research is valued in the search for knowledge relating to human phenomena. Liamputtong (2013) suggests that it is the

role of the researcher to clearly identify the focus of their project and select the method of inquiry that will be most effective in answering the question poised.

To achieve the aims outlined in this thesis, careful consideration led the researcher to choose a qualitative descriptive design. A rationale for using this approach will now be presented.

Choice of methodological approach

Qualitative research methods have become increasingly important in the development of nursing and midwifery knowledge for evidence-based practice (Streubert and Carpenter, 2011). As previously explained, qualitative research does not concentrate on clinical outcomes as quantitative research does; it examines processes and our understanding of issues from the perspective of those involved (Streubert and Carpenter, 2011). Within a woman centred profession such as midwifery where the emphasis is on individuality and personal experiences, qualitative research can be an appropriate choice for studies seeking to explore subjective experiences around a particular phenomenon.

The purpose of this study was to explore, explain and describe the phenomenon of becoming confident from the perspective of midwives supporting women who have chosen the option of water birth within the public health services of WA. The literature review has highlighted a lack of evidence relating to the phenomenon of confidence from the perspective of midwives supporting women who have chosen the option to water birth. The choice to use a qualitative methodology for this research is based on the desire to investigate a phenomenon for which there is currently minimal evidence and understanding within the WA context. Polit and Beck (2010) suggest descriptive approaches to research are chosen if the phenomenon is inadequately defined or conceptualised. This is in contrast to quantitative paradigms where there is existing insight and a proposed hypothesis to test (Davies, 2007).

Another factor that has influenced this methodological choice is the current context of the phenomenon in WA. The practice of water birth became an option following

the publication of the WNHN guidelines in 2009 and is thus a new and unexplored phenomenon with WA. At this time very little is known about how the midwives of WA view the building of their confidence to support woman who choose to water birth. For this reason a qualitative design that promoted discovery into how midwives perceive development of their confidence in relation to water birth offered the best opportunity to gain insight into this phenomenon.

Selection of a specific qualitative methodology

A number of different qualitative research designs are available including Grounded Theory, Phenomenology and Ethnography. Ethnography is a description and interpretation of a culture, social group or system (Streubert and Carpenter, 2011). The research examines the group's observable and learned patterns of behaviour, customs, and ways of life. This exploration enables the researcher to form a picture of the way of life of some identifiable groups of people and is therefore the method preferred by anthropologists (Streubert and Carpenter, 2011). This research design includes 'doing fieldwork' or 'going native' to focus on culture and how people interact with each other (Rees, 2011). Data is collected through direct observation, participant observation and unstructured interviews. In ethnography, the researcher is the primary instrument and spends considerable time in the field setting to observe a full cycle of activity around the phenomenon under investigation (Rees, 2011). The Ethnography design would not be suitable to address the purpose of this WA study on midwives' confidence with water birth because the identified gap in knowledge in this area is not related to a social group or system. The purpose of this study is to discover insight into the phenomenon of professional confidence for midwives opposed to exploring a way of life or culture. In addition, observational field work would not have been a suitable option for this study due to reasons of access and client privacy; it would not have provided insight into how the midwives perceive their current confidence or the process they undergo to build confidence. With an Ethnographic design the researcher would be required to observe the midwife as she became confident to support water birth. It was not practicable for the researcher to observe the midwives during each birth as this would take considerable time and impede on the woman's privacy during the birth of her child. It would also not

provide the data required to address the gap in knowledge around the process midwives undergo to become confident with water birth.

Phenomenology, another qualitative design, was founded by philosopher and mathematician Husserl (1859-1938) whilst studying consciousness as experienced by participants. The goal of a phenomenological study is to describe the lived experience of the participants and the meaning participants' attribute to a particular experience. Phenomenology is based on the assumption that one can only describe the world as experienced by the studied individual and it is neither a subjective nor an objective description (Merleau-Ponty, 1962). Phenomenology therefore seeks to describe psychological structures (Rees, 2011, Liamputtong, 2013).When using the phenomenology method, a researcher is required to approach the data without prejudice and it is therefore advisable not to use literature as a source of data. The phenomenological design can involve a descriptive approach or an interpretive approach. A descriptive phenomenological study focuses on describing what we know whilst an interpretive study would delve deeper than descriptive and include interpreting meaning of the lived experience (Streubert and Carpenter, 2011). In consultation with my supervisory team for this study, I decided against taking a phenomenological approach as the purpose was to explain the process of building confidence to support the option of water birth. In phenomenology a homogenous group with a similar experience is necessary. However, to address the purpose of this study a heterogeneous group of midwives with differing levels of perceived confidence was more appropriate in order to derive an understanding of the process involved in becoming confident.

In order to address the purpose of this study careful consideration and consultation with colleagues and supervisors was undertaken and an approach based on the principles of grounded theory was selected. The phenomenon of building confidence to support the choice of women who had selected the option to birth immersed in water reflects a process. This process warrants explaining as well as describing and a grounded theory approach offered the most suitable design. A brief background of grounded theory with justification for selecting this design will be presented.

Grounded Theory was initially described by Glaser and Strauss in their seminal text 'The Discovery of Grounded Theory: Strategies for Qualitative Research' (1967). These two sociological researchers co-created this methodological strategy while working together on a study into the social loss of dying patients within a hospital setting (Glaser and Strauss, 1965). Strauss, a social psychologist, was influenced by the philosophy of symbolic interactionism (SI). Symbolic interactionism originated from the works of German economist and sociologist Max Weber and American philosopher George Herbert Mead in the late 19th and early 20th centuries. During their observations of life within human groups Weber and Mead emphasised the subjective meaning of humans' behaviour and the social process. The term symbolic interactionism was later coined by Blumer (1969) to signify that human beings attach meanings not only to objects in their daily life but also to their social interactions with other people. Individuals interpreted these meanings and shaped their behaviour on the basis of this interpretation. In SI terms, humans are viewed as active and creative participants who construct their own world as a result of human interactions and behaviours (Blumer, 1969).

In contrast, Glaser came from a background of quantitative science. Glaser's mentor was mathematician and methodological innovator Paul Lazarsfeld, who developed a way of quantifying social data to describe and explain the mood of communities (Laruffa, 1974). Glaser, therefore, was familiar with the use of statistical data in generating hypotheses to interpret social behaviours or attitudes. Despite their very different backgrounds, Glaser and Strauss together developed a model of research that focused on discovering theory or explanation for a phenomenon by systematically following a set of procedures to develop an inductively derived grounded theory about the phenomenon (Glaser and Strauss, 1967, Strauss and Corbin, 1990).

Over time the careers of Glaser and Strauss took them in differing directions. Glaser maintained a steadfast commitment to the wholly inductive methodology as it was originally conceived; indeed it is often referred to as the Glaserian approach to Grounded Theory. Co-author Strauss along with nurse researcher Juliet Corbin moved to simplify and modify the methodology, and to provide a framework within which they proposed theory should be constructed (Strauss and Corbin, 1990).

Since the end of the 20th century the methodological variants of Strauss and Corbin have been extended; the Constructivist approach proposed by American Sociologist Kathy Charmaz (2000) is one such variant. Charmaz's construct is the one that I as the researcher identify most closely with, in that the researcher's thoughts, feelings and prior knowledge are acknowledged and embraced as data to be considered equally with other data. It is Charmaz' view that 'researchers are part of the study, not separate from it' (Charmaz, 2006, p. 176). The Constructivist assertion suggests that theory construction is mutual, and that the resultant Grounded Theory is reflective of both the participants' and the researcher's reality. This represents a significant departure from Glaser's view (2002), however, who asserts that the researcher's reality in data analysis and theory construction is 'an unwarranted intrusion'.

As a practising midwife who, prior to the conduct of the study, had engaged personally with the process of becoming confident to support women who had chosen the option of water birth, I felt that I could not fail to empathise with my colleagues' thoughts and perspectives. Just as the research method we choose influences the findings, so does what the researcher brings to the study. As Charmaz says, 'We are not passive receptacles into which data are poured' (Charmaz, 2006, p. 15).

Explicating the researcher's beliefs

As a practising midwife educated in the United Kingdom (UK) where water birth has been an established option since the 1980s I am researching an area of practice I am very familiar with. The perception of confidence relating to water birth became of interest to me following migration to WA in 2008. Due to my prior experience I was recruited by the existing water birth working party at the maternity unit where I was employed to support water birth education and assess competence amongst the midwives. One of the challenges presented to me was to ensure the workforce was not only competent but also confident to support this birthing option. I was educated and practised within a maternity culture in the UK where water birth was widely accepted as a normal and routine option for labouring woman with low risk

pregnancies. In contrast, the medicalised maternity culture in WA had historically deemed a water birth to be an accidental event and a reportable clinical incident. Births immersed in water in maternity hospitals in WA were considered to be adverse events requiring a paper trail of investigative forms and managerial scrutiny.

Not surprisingly, I discovered the proposed introduction of water birth in to our hospital was not met with enthusiasm by all my midwifery colleagues. Until this time my own personal confidence with water birth had not been an issue or something I had actively considered. The tasks of instilling confidence in others led me to question the acquisition of my own. As a researcher I appreciated that this would have an impact on my interpretation and analysis of the data resulting from this study. Having identified and bracketed as many of my pre-conceived assumptions as possible I felt the systematic approach and prerequisite structure of a Grounded Theory approach would both aid discovery and minimise researcher a priori assumptions in this instance. However, I also acknowledge that as the researcher I am an integral instrument in the research process. I have bracketed my beliefs for the reader's information and I state my intention to minimise research bias by my choice of this qualitative thematically design (Charmaz, 2006).

Statement of intended limitation

Corbin and Strauss (2008) acknowledge that although they consider theory development worthwhile, it is not necessarily the main goal. The discovery of concepts and themes from the data are equally important as they lead to thick and rich description. Researchers are encouraged to use the analytical techniques in their own way in order to manage masses of qualitative data. Corbin feels strongly that it is important for the researcher to be very clear from the beginning of a study what it is they are setting out to achieve (Strauss and Corbin, 1990). With that in mind, I can state it was my intention for this study to use a constant comparison analytical technique to discover and describe the factors influencing midwives confidence with water birth and the process they undertook to develop/foster and attain that confidence (Charmaz, 2006, Corbin and Strauss, 2008). Due to thesis restrictions around the scope of a Master's research project, it was not possible to develop a full Grounded Theory in relation to midwives confidence around water birth. I elected to

use the interpretations and data analysis techniques of the grounded theory approach as I felt its flexibility empathised with the investigative and descriptive nature of the insight I sought to achieve (Charmaz, 2006).

Design, purpose and objectives

A modified grounded theory methodology was selected to address the phenomenon around midwives confidence with water birth. The purpose of this study was to explore, explain and describe the phenomenon of confidence from the perspective of midwives supporting women who have chosen the option of water birth within the public health services of WA.

The objectives guiding this study were:

1. To explore and describe midwives' perceptions of the phenomenon of professional confidence'.
2. To explore factors identified by midwives as enhancing and as inhibiting the process of becoming confident.

Setting

The sample for this study comprised midwives registered in WA and working in four maternity services offering the option of water birth in the Perth metropolitan area. The data was collected between June 2011 and June 2013. During this period it was possible to engage an independently practising midwife to support a water birth in the home; however this option was not within the public sector. There were four maternity services within the public sector offering this birthing option in the metropolitan area:

- Armadale Health Service is a secondary peripheral metropolitan hospital. The public maternity unit had 18 beds operational with a capacity of 21 beds. It had four birthing rooms and caters for low and medium risk births.

- Kaleeya Hospital in East Fremantle is a secondary hospital. This facility has four birthing rooms, 13 obstetric beds, and a capacity to 'overflow' into the surgical ward if numbers were high.
- The Family Birth Centre offered midwifery-led care in a home-like maternity unit located next to King Edward Memorial Hospital (KEMH), WA's only tertiary maternity service. The Family Birth centre provides a service for women with low risk pregnancies.
- The Community Midwifery Program (CMP) is a publically funded midwife-led homebirth service available to women and their partners living in the Perth metropolitan area. The program provides continuity of midwifery care throughout pregnancy, labour, birth and the post natal period. The CMP provides care for women with low risk pregnancies (Health Networks Branch, 2011).

A summary of births for the WA maternity services that fully support water birth for the year following implementation of the WNHS clinical guidelines for the use of water during labour and/or birth in WA Health services is presented in table 4.

Table 4: Labour/birth episodes for maternity care services offering water birth in metropolitan Perth, WA. April 2010 – March 2011 (Health Networks Branch, 2011)

Maternity Care Service	Total Number of Births	Total Number of Water Births	%
Armadale Health Service	1,725	102	5.9
Kaleeya Maternity Unit	1,299	125	9.6
Family Birth Centre (KEMH)	316	186	58.9
Community Midwifery Program	221	176	79.6
Total	3,561	589	16.5

Sampling and recruitment of interview group

As the phenomenon of interest was the process of the midwives becoming confident to support women who had chosen the option to birth immersed in water, the most

reliable source of data were the midwives exposed to this option. Midwives who were both deemed competent by their employer to care for women who had chosen this option and perceived themselves as confident to do so were recruited for the initial interviews.

In the weeks prior to data collection information sessions were held during routine staff meetings at each of the four maternity services. In April 2011 the researcher also attended a water birth study day and presented an overview of the proposed study to 50 midwife attendees, some of whom were potential participants for the study. Written information was made available to all interested parties at the maternity services and to those at the study day who were then directed to contact the researcher (see Appendix 1 for the information sheet). Participants were asked to complete the demographic questionnaire (Appendix 2). This brief questionnaire requested contact details, length of registration as a midwife, current employer, and a brief description of the midwife's clinical water birth experience. The questionnaire also contained one item around confidence based upon a Likert scale numbered 1 to 10 that requested the midwife to indicate how confident she currently felt to care for a woman who chooses to birth her baby while immersed in water. The purpose of this item was to inform sampling as the study progressed to ensure that midwives with a range of confidence levels around water birth were known and available to be interviewed. It also ensured contact information was retained. The demographic questionnaire and confidence item was not designed or used for any statistical purposes. In total 30 demographic questionnaires were completed and returned from information sessions and the study day. A further 10 midwives volunteered to participate through conversations with other participants.

Two forms of sampling were used to select participants for the interview group. Initially, purposive sampling was employed in which the researcher selects any participants included in the selection criteria while considering factors such as differing levels of confidence and place of employment (Polit and Beck, 2006). For these reasons, two midwives from each of the four maternity services were selected for the first eight interviews. Demographic information relating to participants' educational background, employment history and water birth experience was collected during the recruitment process (detailed above from the water birth study

day) to further substantiate this sampling technique. The demographic questionnaire also recorded the participants perceived level of confidence on a Likert scale of between 1 (not confident) and 10 (extremely confident).

As data collection and analysis progressed several major categories relating to midwives confidence were identified, which will be discussed in detail in the findings chapter. Following the initial interviews a theoretical sampling technique was used. Theoretical sampling is the process of letting the research guide the data collection (Corbin & Strauss, 2008). Relevant concepts are elaborated upon and refined through the purposeful gathering of data pertaining to these concepts (Corbin and Strauss, 2008). Participants were selected from the completed demographic questionnaires based on characteristics that the researcher felt would verify and expand upon emerging categories. For example, the country in which the midwife was educated about and gained initial experience with water birth was one such characteristic. Many of the midwives employed in these maternity services had gained their confidence around water birth in the UK. As time passed and this birthing option became increasingly established within WA, midwives who have been educated and worked solely in WA also became confident water birth practitioners and were included in this study. Midwives who were deemed competent by their employer but who did not feel completely confident to facilitate water birth without supervision were selected from the demographic questionnaires, asked and agreed to participate as the theoretical sampling progressed.

In theoretical sampling, the researcher is sensitive to the gaps in the emerging concepts and by the questions generated by answers to previous questions. The researcher then selects subsequent participants on the basis of these questions and gaps and for specific theoretical purpose (Glaser & Strauss, 1967). Theoretical sampling continued until saturation was achieved; that is, until no new or significant data emerged and each category was well developed in terms of property and dimension (Corbin and Strauss, 2008).

Sampling and recruitment – focus group

In addition to individual interviews, midwives were also recruited for a focus group interview through a convenience sampling method. This process occurred once

preliminary findings were available. The researcher attended a prearranged staff meeting/education session with the Community Midwifery Program midwives, one of the maternity services included in the study. These midwives were all confident to support water birth and reported that around 80% of the woman they cared for would choose to use water immersion during labour and birth. The midwives were asked and agreed to participate in a focus group interview around the phenomenon of building confidence to the support the option of water birth. Once the discussion around building confidence was complete, the researcher introduced the preliminary categories and sub categories for further debate and discussion to determine support around the preliminary analysis; this is an example of what is termed 'member checking', where findings are tested with members of groups akin to those from whom data were originally collected (Liamputtong 2013).

Ethical consideration

This study was approved by the Human Research Ethics Committee of Curtin University (Ethics approval number SONM1-2011) and the Human Research Ethics Committees at all the maternity services from which the participants were recruited. All participants were provided with a plain English information sheet (Appendix 1) detailing the purpose of the study, the voluntary nature of participation and their right to withdraw at any time without penalty. Participants were assured verbally and in writing that all information provided would be non-identifiable and confidential. Data was stored on a password protected computer, and in keeping with the requirements of the National Health and Medical Research Council guidelines (NHMRC, 2007), the transcribed interviews and field notes will be kept in a locked filing cupboard for a period of seven years following publication and then destroyed. The information sheet also contained contact details for the researcher, my supervisors and both the University and Hospital Human Research Ethics Committees should the participant wish to ask further questions or raise concerns. All participants were made aware when initially approached about the study and again just prior to commencing that interviews would be digitally recorded and transcribed verbatim. Once participants were satisfied with the requirements of the study a consent form was signed (Appendix 3).

Access to data was limited to the researcher, the supervisors and the transcriber who had been informed about the confidential nature of the data. Participants' full names were not used during the interviews and no names were transcribed. All data was de-identified using a random numeric code generated by the researcher and the master list containing identifying information and corresponding codes were stored in a locked filing cabinet separate from the transcripts. All the digital recordings and transcripts were stored on a password protected computer accessible only by the researcher.

The researcher was employed as a midwife at Kaleeya Maternity Hospital which was one of the services used to recruit participants for this study. All interviews were conducted away from the work place out of work hours. The researcher is a peer of the participants and not a senior colleague. This eliminated any concerns regarding vulnerable groups and the risk of coercion (National Health and Medical Research Council, 2013).

Data collection

Interviews

Data were collected and analysed concurrently throughout the research process (Corbin and Strauss, 2008). Data were collected through in-depth one-to-one interviews that were conducted in private settings with minimal risk of interruption. All participants were given their choice of time and setting (Charmaz, 2006). Choices of settings included the researcher's home, the participants' homes or the participants' work places prior to the commencement of their work shift. The length of each interview varied from 20 minutes to 90 minutes with an average length of 45 minutes. Interviews produced a total of 61,600 words of data for interpretation.

As suggested by Corbin and Strauss (2008), the initial interviews were guided by semi-structured questions aimed at focusing the participant on the area of interest. This allowed the participants to fully explain what was important to them. The semi structured questions were derived from the researcher's clinical experience and a review of the literature. They were intended to explore the midwives feelings in relation to water birth and her confidence. The first participants were asked:

1. *Can you tell me how you first became involved in caring for woman who chose to labour and birth immersed in water?*
2. *What do you feel contributed to you becoming confident to care for these women?*

As analysis progressed and concepts and categories emerged, the participants' opinions on existing data was sought towards the end of each interview. For example some midwives had expressed that they found the presence of a second midwife at the birth reassuring while others found it inhibiting. If the participant had not mentioned their own views during the interview, toward the end of the interview I would ask the question 'how does the presence of a second midwife for birth affect your own confidence?'

No new information emerged after the analysis of the 15th interview I conducted and saturation was confirmed to have been reached with the 16th and final interview. The focus group interview for the purpose of member checking was conducted after the 16th interview when analysis of the preliminary findings were developed sufficiently to share.

Writing memos

Writing memos, also referred to as memoing or note taking by the researcher, is also central to both data collection and analysis. As previously mentioned memo-writing is one way of confirming 'trustworthiness' of the data and contributes to the audit trail (see Table 3 on page 44). Writing memos begins with the initial data collected and continues throughout interpretation and analysis. The very act of writing memos forces the analyst to think about the data (Corbin and Strauss, 2008). Corbin and Strauss (2008) suggests that the process of memoing moves the analysis forward and as such is as important to the research as data gathering itself. Memos capture the researcher's thoughts about how concepts are related and structured. Qualitative analysis involves complex and cumulative thinking that would be very difficult to keep track of without the use of memos, particularly when most research projects take place over several months (Streubert and Carpenter 2011).

The memos for this study were written in conceptual form after the interviews and throughout the analysis process. In this way the interpretative work of the researcher is incorporated in the research process and eventual findings (Charmaz, 2006). Table 5 provides an example of an extract from the memo relating to the second interview.

Table 5: Example of memoing

Extract from Memo Relating to Interview Two
Participant 2 seem to be a very confident person at this stage of her life. Her confidence seems to have been achieved through various channels. She has a sound academic back ground and an appreciation of the importance of evidence ... guidelines ... documentation ... she seems to have an awareness of how to keep the establishment happy ... practising within her scope ... I think this would make her feel SAFE ... feeling safe would impact on confidence. Participant 2 mentions the importance of preceptors on several occasions. She talks about both the positive and negative influences they can have. It would appear that much of her confidence came from working with "GREAT" preceptors as a student and as an early career midwife. She recognises that the people you work with and the setting in which you work play a key role in your personal and professional development ...You wouldn't expect the labour ward midwives at a tertiary hospital to have the same exposure to low risk intrapartum woman as the midwives at the birth centre. The Labour ward midwives deal with high risk women and so have very different priorities as far as care is concerned. Interestingly participant 1 had 6 months of low risk labour experience early in her career which seems to have had a big influence on her personal philosophy ... I wonder if she had spent 6 months doing high risk care just after qualifying she would have the same perspective ... ???? Does low risk exposure need to come early in your career ???? Or will it have the same influence if it comes later ???? Must ask the CMP Over whelming theme that comes from this interview is that of "normalising water birth" ... it is nothing unusual ... it's just normal physiological birth in water ... the care is the same ... nothing needs to be re learnt just considered. I get the impression that participant 1 feels that there is currently a lot of unjustified fuss around water birth ... she feels that as a midwife it is her job to deliver babies and on land or in water is all the same. So why wouldn't she feel confident ???? Key points • Normalising water birth • Great confident preceptors • Sound academic and policy knowledge to make you feel safe.

Data analysis

Data analysis began with the commencement of data collection, following the first interview, using the constant comparison method which is a key aspect of grounded theory (Rees 2011). The transcribed interview was examined line by line in a process known as open coding (Corbin and Strauss, 2008). Each line was given a code summarising the key content of the line. The transcribed data was cut and pasted into the left-hand column. The data was then scrutinised line by line in an attempt to understand the essence of what was being expressed in the raw data. A conceptual name was ascribed to describe that understanding (a code) in the right hand column the table. The open code that was allocated represent the ideas contained in the data (Corbin and Strauss, 2008). Open coding requires the researcher to put aside assumptions and preconceived ideas and allow the data to guide the analysis, thus selecting the right few words that best describes what is indicated by the data. Table 6 provides an example of coding from the first interview

Table 6: Example of coding

Transcribed Interview	Open Coding
Researcher: So, as far as midwives that are new to water births are concerned, is there anything that you can think of that would be useful to make them feel confident	
1. My question is why they have anxieties around it. And I think that to make them feel more comfortable and confident that has to come from their education and training first of all, from an academic evidence based background. It has to come from being familiar, it being an option, just being run of the mill familiar, it's no different, it has to come from them as well. You have to be confident in your own self and if you are outside your comfort zone or you are learning new things being able to ask for the support, ask appropriate questions and verbalise but it does come from obviously the preceptors that the midwives and students work with because they were the biggest influence for me in my training. One the service was always there, water births and land births the midwives who supported those options it was kind of run of the mill for them as well. So I would say was rarer to meet midwives who was opposed to it or uncertain	Questioning where anxiety stems from Influence of initial education and Training ... Using research and evidence Familiarity run of the mill Inner confidence Able to access support from colleagues Positive preceptor influence Familiarity run of the mill Positive attitude to water birth

As new data from subsequent interviews was reviewed it was compared to other data and to codes that had already been developed in a process known as comparative analysis. Incidents in the data that were found to be conceptually similar to previously coded incidents were given the same label or code. Each new incident that was coded under an existing label added to the general properties and dimensions of that code, elaborating dimension and depth (Corbin and Strauss, 2008).

After the third interview it became apparent that the amount of data the interviews were generating was substantial and needed to be managed more effectively and so I learned how to use QSR NVivo, version 9. NVivo is a qualitative data analysis computer software package produced by QSR International. It has been designed for qualitative researchers working with very rich text-based and/or multimedia information, where deep levels of analysis on small or large volumes of data are

required. This software acts as a virtual filing cabinet in which to organise and manage data. The analysis and conceptualizing remains the researchers prerogative (NVivo, 2008, NVivo, 2008). All data was subsequently uploaded into NVivo and managed via this software which facilitated a systematic and comprehensive method of handling the data throughout the analysis.

Following eight interviews and analysis of the transcribed data a total of 51 codes had been revealed. It became necessary to combine and merge these codes into more manageable and succinct groups known as categories. A category envelopes a group of codes that are indicating similar concepts. Constant revision and movement of the data as the analysis progressed resulted in 19 categories being identified. Although generated from the data and based in them, these categories were also informed by the researcher's midwifery and academic knowledge (Charmaz, 2006). Ideas generated by the data and the emerging concepts were constantly compared with the data to check that the ideas were well grounded in the data. The technique of comparative analysis is used to check the accuracy of initial evidence, to fully describe concepts and categories, and to improve the descriptive power of categories (Glaser & Strauss, 1967). An example of this is shown in table 7.

Table 7: Example of creating categories from code

Initial Code (Sample of 71 in total)	Grouped to Subcategories (Sample of 19 in total)
Adverse water birth events Concerns for safety Feeling nervous Obstetric emergencies	Concerns for safety
Being with woman Enjoys low risk Feeling comfortable (midwife) Hands off - on the head Just birth Practise and experience Love of physiological	"Just birth" (in-vivo code)
Knock confidence Fear of litigation Fear of maternal disappointment Feeling nervous Negative feelings towards water birth Over compensating for lack of confidence Rationalising water induced doubt Systemic obstacles to water birth	"Knock confidence" (in-vivo code)

The initial 19 categories were further grouped by concept to form major categories as shown in Table 8.

Table 8: Example of creating major categories from subcategories

Subcategories	Major categories
Attitude prior to water birth facilitation Midwifery initiation Training prior to facilitation	What came before
Guidelines research evidence and documentation Initial water birth experience Issues of water birth exposure Mentor influence Un learning Until proficient	Becoming confident
Being with woman Confidence through autonomy Innate confidence Just birth Positive feelings towards water birth	Confidence personified
Adverse events Concerns for safety Doctors not supportive Knock confidence	Things that make you go oooo!!!!

The theoretical sampling process that commenced from this point further enriched and guided the development of sub-categories and major categories as the data collection progressed. As the categories developed some were integrated and renamed as deemed appropriate by the researchers. Interview transcripts were periodically distributed to thesis supervisors who would also thematically code the data and compare findings to those of the researcher. Coding and categorising were discussed between supervisors and the researcher at regular data analysis meetings, which was another method of ensuring trustworthiness. Each supervisor analysed a subset of transcripts, whereas the researcher analysed all transcripts ensuring that each interview was reviewed by at least two members of the research team. The process of coding and categorizing continued until saturation is reached.

The final major categories and sub categories were then presented to the focus group of 10 midwives as a form of member checking for their feedback and to determine credibility and dependability, which are important elements of ensuring trustworthiness and rigor in qualitative research (Liamputtong 2013). Verbal consent to participate was gained from the focus group midwives prior to the meeting, this consent was confirmed by their attendance. The meeting was recorded, transcribed verbatim and included within the findings chapter to further inform an understanding of the phenomenon of the process of gaining confidence to support women who have chosen to water birth.

The basic social-psychological processes have revealed three major categories that offer a rich description and explain of the phenomenon of professional confidence within this specific midwifery context (i.e. WA) (Strauss & Corbin, 1990). The scope of this master's research project was to determine factors associated with the process of becoming confident to support women who had chosen the option of water birth and therefore a substantive theory was not developed at this stage.

Trustworthiness

In qualitative inquiry, concerns of rigor such as reliability and validity translate as issues of credibility (truth-value), transferability (applicability), dependability (consistency) and confirmability (Liamputtong 2013). In this study the use of the techniques associated with constant comparison will result in new data being constantly compared to existing data resulting in an in-built verification system. Purposeful and theoretical sampling was used to ensure rigor, along with thick description. Other trustworthiness activities included discussing and debating the emerging codes and concepts with supervisors as they arose, seeking recognition of the emerging concepts with peers and colleagues through the sharing of preliminary findings at study days and staff meetings, diagramming the links between different concepts; offering examples of open coding and category integration within the methodology; and using audit trails to document the reasoning and rationale for decisions made, and justification for conclusions drawn (Streubert Speziale and Carpenter 2003).

Summary

This chapter has presented how a modified grounded theory approach and the constant comparative technique was selected to explore how 26 midwives working in WA perceived their confidence to support women who choose the option of water birth. The background and origins of qualitative inquiry were described and a rationale for the use of this particular approach was provided. As well as outlining the design of this study, the methods employed in sampling, data collection and analysis were provided. Measures taken in pursuit of trustworthiness were delineated as well as the ethical considerations that were undertaken.

CHAPTER FOUR – CHAPTER FINDINGS

Introduction

The findings from this study are presented in Chapter Four. The profile of the participants is first described, followed by an outline of the major categories and subcategories that offer rich description of the phenomenon of confidence to support water birth from the perspective of the WA midwives. Three major categories are presented, each containing between three and five subcategories. Throughout the text the major categories are labelled and presented in ***bold italic*** format and the subcategories are presented in **bold** only. When quotes are used to illuminate and support ***major categories*** and **subcategories** in this findings chapter they are presented in *italics*. Where words have been omitted from quotations, ... is used to indicate this.

Profile of participants

A total of 26 registered midwives participated in this study. Sixteen underwent one to one in-depth interviews conducted between June 2011 and March 2013. Ten further midwives contributed via a focus group meeting, which was held in May 2013. Data collection ceased after participant 16 and following the focus group interview and member checking process as data saturation was reached. Feedback from the focus group confirmed that the major categories and sub categories derived from the data analysis were relevant and reasonable confirming trustworthiness.

All midwife participants were employed at one of the four maternity facilities described in chapter one at the time of data collection. Demographic information collected prior to the one-to-one interviews revealed that the majority of the 16 midwives interviewed had more than 15 years of clinical midwifery experience (n=8), four qualified in the last seven years and the remaining four had worked as a midwife for between 7 and 15 years. Half of the interviewed participants had more than seven years' experience supporting the option of water birth, while three had less than three years and the remaining four had between three and seven years' experience with the option of water birth. Twelve of the 16 participants interviewed

had received their midwifery education as a post graduate qualification following a nursing diploma; four had completed a Bachelor of Science Midwifery degree. Eight of the midwives interviewed had been educated in Australia with the remaining eight from the United Kingdom. A demographic profile of midwives participating in individual interviews is provided in Table 9.

All the midwives who were interviewed were asked to indicate how confident they felt to support women who had chosen the option to water birth using a Likert scale of 1 to 10 with 1 being not confident and 10 being extremely confident. Perceived confidence at the time of interview ranged from 4 to 10, with a mean of 8.25. Please refer to Table 9.

Table 9: Demographic profile of midwives participating in one-on-one interviews

Maternity Care Service	Number Of Midwives
Armadale Health Service	3
Kaleeya Maternity Unit	5
Family Birth Centre (KEMH)	5
Community Midwifery Program (CMP)	3
Years of clinical midwifery experience	
< 7 years	4
Between 7 and 15 years	4
More than 15 years	8
Years of water birth experience	
< 3	3
Between 3 and 7	5
More than 7	8
Midwifery education - qualification	
Nursing diploma then postgraduate midwifery course	12
Bachelor of Science Midwifery degree	4
Midwifery education - location	
United Kingdom	9
Australia	7
Water birth initiation (initial education and practice)	
UK	8
Australia	8
Self-evaluated level of confidence to support the option of water birth Likert scale 1 to 10	
4	1
5	1
6	2
7	2
8	2
9	2
10	6

The focus group consisted of ten midwives employed by the Community Midwifery Program (CMP) in Western Australia (WA): details of all the maternity services are presented in chapter one. The CMP midwives offer water birth as an option to all their clients with approximately 80 % choosing this option (Health Networks Branch, 2011). These midwives considered themselves to be extremely confident caring for women who choose to birth immersed in water. Demographic information was not obtained from this group however there was a mixture of Australian and UK educated midwives, all of who had more than seven years of clinical midwifery experience.

Analysis of the interview data resulted in the emergence of three main categories, each of which contained between three and five sub categories. Together they depicted how midwives describe the journey to becoming confident to support women who have chosen the option to water birth and how they are able to retain that confidence once achieved.

The three major categories identified through analysis of the interviews were titled: ***What came before the journey; Becoming confident – the journey*** and ***Staying confident***. The major categories and subcategories are listed and briefly defined in Table 10. These major categories and their sub categories will now be described in detail with definitions and quotes from the midwife participants to support the analysis. To maintain confidentiality, the midwives have been assigned a code (midwife 1 to midwife 16), which will be used with their corresponding quotes and presented in italics. Quotes will also be presented from the focus group interview and highlighted as such (FG); however, individual midwives from this group interview will not be identified by a code.

Table 10: Summary of all categories with a supporting description

Major Category	Sub Category	Description
What came before the journey		Illustrates factors that midwives felt influenced their perception of water birth before they personally witnessed this option.
	Attitude to water birth	Refers to the midwives' thoughts and feelings towards the use of water birth prior to their initial personal experience.
	Midwifery initiation	Outlines midwives' perceptions of the style of midwifery education they encountered and their early career exposure to water birth.
	Water birth education	Refers to the influence that midwives felt their specific water birth education had on their confidence prior to the first time they personally experienced water birth.
Becoming confident – the journey		Describes what midwives felt influenced their development of confidence as they began supporting women choosing water birth.
	Trust in the Guidelines	Depicts how knowledge of the clinical practice guidelines for water birth impacted their confidence.
	Another midwife in the room	Discusses the impact the presence of a colleague has on confidence.
	Consistent exposure – the challenge	Refers to how confidence increased with more exposure to water birth. Regular opportunities to practice and reinforce clinical skills increased confidence to support women who choose this option.
	Inner Confidence	Describes how inner confidence influenced the midwives' ability to adapt to building this new clinical skill.
	Unlearning – old skills for new	Explores how the midwives who regarded their education as 'old school' felt skills had to be 'unlearned' in order to work with this option.
Staying confident		Illustrates factors that the midwives identified as important in staying confident to work with women who have chosen water birth.

	It's just birth	Denotes how confidence was sustained by the belief that birth is a normal physiological event for most women with low risk pregnancy and that water birth is just an option that supports this normal process.
	Mother and midwife enthusing each other	Explores how water birth can empower women during the birthing process. The joy and satisfaction exhibited by the mother also has a positive influence on the midwives confidence and this sustains their confidence
	Knocking confidence	Conveys situations that the participants have reported as having (or anticipate would have) a negative effect on their confidence.

What came before the journey

What came before the journey is a major category illustrating factors that midwives' felt influenced their perception of water birth before they personally witnessed this option. This category comprises of three sub-categories: **attitude to water birth, midwifery initiation** and **water birth education**. The first sub category labelled **attitude to water birth** describes how the participants viewed water birth before their first personal encounter and depicts examples of how their opinions were shaped by listening to the views of other people. The second sub category labelled **midwifery initiation** describes the impact of early education, its influence on the participants' views of water birth and their ability to adapt to this new practice. The final sub category in the major category ***What came before the journey*** is **water birth education** and examines the impact of any formal education events relating to water birth that the midwives attended.

Attitude to water birth

The first subcategory of ***What came before the journey*** was labelled **Attitude to water birth**. This subcategory refers to the participants' thoughts and feelings towards water birth prior to their initial personal experience.

The midwives interviewed revealed that their attitudes to water birth prior to their initial encounter were a mixture of positive and negative. The negative comments reflected how they did not consider water birth as a suitable option and viewed the prospect with bewilderment and mistrust. The following comment is from a midwife educated in the United Kingdom where water birth is more commonly practiced and widely accepted than it is in Australia. *'I didn't know what I thought of water birth then. To be honest, I thought initially that if you wanted to birth in water, you should have been a fish. Personally I didn't necessarily believe in it.'* (midwife 6). Midwife 16 reflects on her initial impression and recalls thinking it was a '*strange concept ... didn't know much about it and thought why would anyone want to do that?'* Midwife 8 gave a similar account of her original view of water birth: she had been educated and worked as a nurse for many years prior to becoming a midwife and acknowledges that this had impacted on her initial perception of water birth and contributed to feelings of mistrust in this birthing option. She also did not consider water birth when planning the birth of her own children.

> *'I probably had limited knowledge of it. I thought that it was a hippy thing to do. Coming from a medical model of care it wasn't something I gave much thought to. Definitely with my children it definitely didn't enter my head as an option.'* (midwife 8)

Comments from friends and associates that had concerns for the safety of immersion in water contributed to midwife 2 feeling uneasy about water birth prior to her initial encounter. This is illustrated by the following comment: *'I remember when I was a lot younger hearing a lot of negative things about water birth and it was dangerous, so I was a bit uneasy about the experience.'*(midwife 2*).* One of the midwives from the focus group recalls how the press impacted on her attitude; '*I read a newspaper article about how a baby was left brain damaged following a water birth, definitely coloured my opinion.'* (FG)

Not all midwives were sceptical however. Although similarly daunted, midwife 5 recalled being excited by the prospect of supporting water births. She was educated in the WA private hospital sector and had no exposure to using water for labour and

birth during this period, regardless of this though her predominant attitude was one of excitement. She said:

> '*Yes because I was really excited about it and I hadn't seen any in my training and hadn't done a lot of information or learned a lot about water births. I had seen some on births DVD but that was the extent of it and I just knew that they happened in the community and at home and not in hospitals – at least not here in WA ... I was a bit daunted but the excitement outweighed the daunting part.'* (midwife 5*)*

The focus group gave a very mixed reaction when asked to recollect their attitude to water birth prior to facilitation. One midwife in the focus group recalled thinking '*why would you want to have a baby in water? We don't have fins*!' This midwife went onto elaborate why she believed she felt this way. She had received no specific water birth training and was expected by her superiors to just '*get on with it'* which she found '*ridiculous*' and made her feel resentful. Another focus group midwife shared how she became a midwife as the result of having a home water birth and recalls thinking right from the onset '*Why wouldn't you? I only ever remember being totally in love with it [water birth]'*. When questioned the focus group confirmed that their attitude to water birth prior to facilitation was influential in their development of confidence, however they all achieved confidence regardless of their prior attitude.

The sub category **attitude to water birth** suggests that in this study the midwives had formed personal opinions about water birth before they had their initial personal encounter. These opinions were based on social persuasion and cultural influences. Of the 26 midwives that participated in this study, only one claimed to dislike water birth at the time of interview. The remaining 25 were very keen to support this birthing option. This would suggest that the midwives attitude to water birth prior to their initial personal encounter did not impact on their ability or willingness to develop confidence to support this birthing option. Ultimately negative attitudes were overridden by and positive attitudes were reinforced. The following subcategory **midwifery initiation** explores the influence of midwifery education on midwives ability and willingness to develop confidence in support of water birth.

Midwifery initiation

The second subcategory under ***what came before the journey*** is titled **Midwifery initiation** and outlines midwives' perceptions of the style of midwifery education they encountered and their early career exposure to water birth.

Not all midwives had received their practical clinical experience as students in maternity facilities that offered a wide range of maternity care models. Of the seven midwives educated in WA, two had been placed primarily at private hospitals that offered only a medical model of care where all births are conducted and overseen by a private obstetrician. Three were educated in the public sector at the state's tertiary maternity hospital and felt they had limited exposure to low risk maternity care during their placement and water birth was not offered. The two remaining WA-educated midwives were based at one of the region's low-medium risk maternity units and expressed the opinion that they had limited exposure to high risk maternity care during her education but were very comfortable with low risk births. The nine UK educated midwives had undertaken their clinical practice as students within National Health Service hospitals. Their education included both low risk midwifery led care and high risk obstetric led care and exposure to water birth.

The participants who had become comfortable with caring for low risk women early in their career tended to self-evaluate their level of confidence to support women who have chosen to water birth higher on the Likert scale and often attributed their confidence to this early exposure. Midwife 10 related how she received a '*good grounding in natural childbirth*' shortly after qualifying. This midwife self-evaluated her level of confidence to support women who had chosen water birth as 10 on the Likert scale.

> *'So after I qualified ... I then went to work in the West London ... and there they had a philosophy of Leboyer [Frederic] method of birth, which meant a gentle, quiet dark room and as soon as the baby is born it goes into a bath of water.'* (midwife 10)

The experience of midwife 10 concurs with the experience of another UK midwife (2) who worked in a low risk birthing unit immediately after qualifying who also became very comfortable with low risk physiological labour and birth. This midwife also self-evaluated her level of water birth confidence as 10 on the Likert scale. She explained how *'As I graduated as a midwife and began to practice I spent two years on birth suite when I first qualified ... I spent six months on the low risk side so got very comfortable and familiar with low risk care.'* (midwife 2)

Having an initiation into midwifery where low risk physiological birth was the norm, and the use of water birth was readily available and accepted, appeared to be key to these two midwives who rated their confidence as 10 on the Likert scale feeling extremely confident around using water immersion to support normal birth. Midwife 7 was educated in WA and her clinical practice experience had been in a unit for low to medium risk maternity care. She recalled experiencing water birth as a student while learning with privately practising midwives. This early exposure to the use of water with normal labour and birth influenced her perceptions and reinforced the normalcy of these practices:

> '*The independent midwives would bring their women ... and I can remember being exposed to water births through them ... It [water birth] was something that I thought was completely normal and I thought all women should do it ... There was always that low key, low risk intention with most of the deliveries.'* (midwife 7)

The following quote from the same midwife illustrates the change she experienced from being a student to a graduate midwife when she went from a low risk care setting as a student to consolidate her midwifery experience in high risk tertiary maternity hospital where water birth was not an option.

> '*After seeing a few [water births] in my student years, I went to do a graduate year ... to get that grounding in high risk and once that twelve months finished I got back to (the low –medium risk unit).'* (midwife 7)

This midwife (7) evaluated her current confidence to facilitate water birth as 7 on the Likert scale which was high for WA educated midwives and also the highest score of the three midwives with less than seven years clinical experience. She felt her early career exposure had '*cemented*' her confidence.

The ten midwives in the focus group were also either UK or Australian educated. Similarly to the interviewed midwives, some had nursing qualifications and experience before becoming a midwife through a post graduate diploma, while some entered the profession via the direct entry route with a Bachelor of Science (BSc) degree in midwifery and had no prior nursing experience. When discussing midwifery initiation one midwife commented that "*as a nurse you are trained to pick up things that are wrong, you look for things that are wrong, whereas direct entry [BSc midwifery] I don't think get that same kind of grounding.*' To which another replied '*I'm nurse trained and I don't think I look for what's wrong!*"

All sixteen midwives interviewed referred to their initial and early education in a manner that suggested it was incredibly influential in shaping their attitude to how they practise clinically. Midwife 1 used the term '*indoctrination*' to describe her education. Midwives 1 and 2 used the phrase '*drummed into you*' when discussing their style of education. Midwife 3 acknowledges that she did not question her midwifery education, the culture was one in which she was not encouraged to question clinical practices or behave autonomously.

> '*I just accepted it because I did not have the curiosity I guess to even question it. It was my first experience of learning about birth and I just accepted what I was being told as being the gospel truth and the only way to do it.'* (midwife 3)

The midwives who were educated in the 1970's and 1980's describe how different their education was compared to the students they mentor now. In the 1970's and 80's they said they were not encouraged to think critically and their practice was often based on custom rather than evidence as it is today.

> '*Every client had to have an episiotomy. Horrendous when you think of it, but I didn't question it then. I don't know why, because I question so many things now but I didn't then. I think it was because I trained when it was really high tech. Inductions were rife, epidurals were rife and they were the full block epidurals. So, yes, I think I just accepted that as the normal.'* (midwife 4)

There was an acknowledgement by the midwives educated in the 1970's and 80's that the style of practice they had been taught as student was '*old school*' meaning that practice had evolved in recent years as new evidence has guided and influenced clinical practice. *'Yes, because I had been taught the old school way that you controlled the head. We were taught that by keeping your hands on it you were keeping that head flexed and you let it come up very slowly.'* (midwife 1)

The subcategory **midwifery initiation** has presented how the midwives believed being immersed in a culture that promoted a natural birth philosophy had a positive impact on their confidence to support water birth. The midwives also noted how the 'old school' midwifery culture of the 1970's and '80's discouraged them from critical thinking and reflective practice. The midwives participating in this study appreciated that their initial midwifery training remained influential to them and contributed to their on-going attitudes and clinical judgements. The last subcategory in this major category is **water birth education** and explores the impact of any education the midwives had specific to water birth prior to their first personal experience.

Water birth education

The final subcategory under '***what came before the journey*'** was labelled **'Water birth education'** and refers to the impact that specific water birth education had on the midwives' confidence prior to the first time they personally experienced supporting woman who had chosen to water birth. Half of the interview group (n=8) expressed that they had received no formal water birth education prior to the first time they were required to support a women who had chosen this birthing option.

The three WA educated midwives who were new to water birth had received formal water birth education prior to their first experience in a hospital 'in-service' format.

> '*We had a little in service (education session) about it and I think that was the first time that I really got information about it. I think I witnessed a couple because you watched one and then you did one under supervision and that was when we first started doing them.'* (midwife 5)

Midwife 16 was educated in the U. K. through the direct entry [BSc midwifery] route but prior to water birth becoming well established in her geographical area. Her formal water birth education was similar in style to the WA midwives' introduction thirteen years later, '*it [water birth] was rolled out gradually over about 7 months, we had some in-house training sessions which were good because it was new and we were all in the same boat ... you could ask questions and not feel silly.'* (midwife 16)

For the three other midwives educated in the UK through the direct entry [BSc midwifery] route, water birth was part of their course, one of whom recalled '*water birth was one of our essential skills in my training, it was a huge unit and you had to get signed off on it, actually one of the most enjoyable units [of study]'* (midwife 8).

The final midwife who had received water birth education prior to facilitation had been practising midwifery in WA since the late 1970's and had first encountered water birth 20 years ago. She explained how she selected water birth as the topic for a unit towards a post graduate qualification at university. At the time the Family Birth Centre in W.A. was due to open and midwife 13 assumed that water birth would be offered as an option at the new facility so was keen to learn more. She described how she:

> '*watched videos, read articles in journals and text books, anything I could find really ... got an in-depth knowledge and understanding of the physiology of why babies do not breath in the water ... self-educated myself so I felt fully confident [with water birth] before even seeing one in life basically.'* (midwife 13)

There are various opportunities currently available for learning about water birth in WA such as study days and e-learning packages as well as textbooks, DVD's and journal articles. None of the midwives interviewed, however, mentioned that they had attended a study day or had used a water birth text book. Some did report that they had '*done a bit of research*' (midwife 2, 4 and10) but did not specify the form this research took.

The eight remaining midwives from the interview group had received no formal water birth education prior to facilitation. Some had watched a video or DVD of a water birth, one of the focus group midwives commented that it was in fact '*better to learn from a good DVD than a not so good mentor'* (FG). Many described their water birth initiation as '*see one, do one*' (midwife 5,11 and 6) method which involved witnessing a water birth that a competent midwife was facilitating, followed by supporting a water birth under the supervision of a midwife who was deemed competent.

Midwife 6 shared how she had cared for several women who had unintentionally birthed in water while practicing in Australia and therefore elected to attend a formal study day whilst on holiday in the UK in 2006. She reported finding this '*inspirational*', particularly the stories the women shared around their own water birth experiences. The following quote from midwife 10 is typical of how the remaining midwives describe their lack of formal water birth education prior to supporting their first water birth. There was a general acceptance that formal education was not available at the time and this was just the way it was:

> *'I think it was watch one, do one then. I don't think we had any formal training at all. I believe we might have had a policy but it could well have been written after I was doing them. I think I did a little bit of research, I watched one, then I had somebody with me when I did my first one, and then I did one.'* (midwife 10)

In conclusion, the final subcategory in this major category ***what came before*** was **water birth education.** All the midwives that had participated in water birth education prior to their initial personal experience reported finding this beneficial.

The midwives without any formal water birth education had managed by learning on the job. The second major category now follows.

Becoming confident – the journey

Becoming confident – the journey is a major category that describes what midwives felt influenced their development of confidence as they began supporting women choosing water birth. There are five subcategories and they are labelled **'trust in the guidelines'; 'another midwife in the room'; consistent exposure – the challenge';' inner confidence'** and **'unlearning-old skills for new'.** The first sub category labelled **'trust in the guidelines'** illustrates how directives, policies and guidelines relating to the use of water immersion in labour and birth produced by maternity governing bodies instructed midwives as they developed skills to support water birth. The second sub category is labelled **'another midwife in the room'** and examines how the presence of a second midwife in the birthing room can have a positive or a negative effect on the midwives' confidence. The third subcategory is labelled **'consistent exposure – the challenge'** and discusses the issues of obtaining sufficient practice and exposure to this clinical skill while developing confidence. The fourth sub-category is labelled **'inner confidence'** and describes how the midwife's personality and inner confidence impacts on the journey of becoming confident to support the option of water birth. The final sub-category is labelled **'unlearning- adapting old skills for new'** and explores how the midwives who regarded their education as '*old school*' felt skills had to be '*unlearned*' in order to work with this option**.**

Trust in the guidelines

The first subcategory under '***Becoming confident – the journey'*** was labelled **'Trust in the Guidelines'**. This subcategory refers to the way the midwives reported how knowledge of the clinical practice guidelines for water birth impacted on their confidence. Clinical practice guidelines are produced in most jurisdictions by maternity services and professional associations as a quality framework for safe practice. Guidelines should be based on the latest available evidence and are intended to ensure that clinical practice is maintained at the highest standard. As discussed in

Chapter One where the context of immersion in water for labour and birth was presented, it is important to note that the first local specific clinical practice guidelines were published by the Women's and Newborns Health Network on behalf of the WA Department of Health in 2009.

Midwife 2 recalled how *'as a student and an early career midwife there were always clinical guidelines to refer to'*. She describes the water birth guidelines as a *'safety net'*. Another midwife reported that if she had not been required to facilitate a water birth for several months she would '*go and speed read the policy [guidelines] just to make sure I still had it in my head'* (midwife 7). Midwife 16 also found it useful to "*have something to refer to if unsure, especially if you've not done one for 5 months ... boosts your confidence to have a read through"*. A fourth midwife expresses similar benefits from the professional guidelines for water birth explaining how she would *'follow policies [guidelines] to the T pretty much which is how I learned how to do things safely*' (midwife 9). Midwife 9 also reports how confusion can occur when mentors employed a more flexible approach to the water birth guidelines:

> *'And it does stipulate specifics in what you need to do but then in my training that's where the confusion comes in as well as not everyone follows that policy and you go, well, OK ... particularly until you develop your skills more if you stick by policy then you are always covered, you are doing it safely.'* (midwife 9)

The subcategory **trust in the guidelines** has shown how the midwives relied on the guidelines particularly whilst learning to support water birth. Their confidence was boosted by having rules to adhere to that ensured safe practice. The next sub category **another midwife in the room** explores the impact of having a colleague present whilst supporting water.

Another midwife in the room

The second subcategory under the category of '***Becoming confident'*** is '**another midwife in the room**' and refers to the impact the presence of a colleagues can have on an individual's confidence. The majority of the midwives had only positive

remarks to make about the mentors they have worked with during their careers. Having a second midwife in the room while they were learning how to support women who had chosen water birth, however, evoked a less positive reaction in some.

The second midwife in the room could consist of a mentor, a shift co-ordinator, or a colleague with more or less experience. A mentor is an experienced midwife who works alongside students and junior midwives in a clinical setting. It is the mentor's role to supervise, support and educate student and junior midwives when they are learning new skills in a clinical setting. When a midwife attends a water birth for the first time she is generally supervised and supported by a colleague who is already competent in water birth. Due to the fact that water birth is a relatively new option for women in W.A. there are many otherwise very experienced midwives who have never attended a water birth. The WA context represents a unique situation whereby experienced midwives may be supervised by more inexperienced midwives who have achieved competency in supporting water birth. The following quote highlights this reality:

> *'the midwife who was my mentor had never done a water birth and I kind of felt I was telling her how to do things. She went to put her hands into the water and I was saying, 'No, don't touch, don't touch' and I felt Oh, gosh, I should be quiet because this is a role reversal and it shouldn't be like that. But I felt quite confident at that point that I could handle and manage water births.'* (midwife 8)

Midwife 8, a junior midwife felt confident in water birth, whilst her senior colleague who was meant to be her midwifery supervisor experienced role reversal for this new skill that the senior midwife was still learning.

The confidence exhibited by the mentor supervising was reported to have an impact on midwives as they learned new skills. Midwife 10 reported how a confident mentor would make her feel confident in her practice whilst a mentor that was not confident in her practice would make her feel anxious, she remarked: '*If the mentor shows*

confidence herself then that is going to rub off on the person and if the mentor is anxious and doesn't have faith in the skill then that's going to rub off, I think.'

For many of the participating midwives the presence of a confident mentor while they were learning and becoming confident to support water birth was reassuring. Midwife 11 typified the view of others when she said '*definitely for me it was having that person there that could just reassure me that it's normal, everything's fine and kind of guide me through things.*

Although participants stressed the importance of having a confident mentor the shortage of midwives able to support and supervise colleagues in their journey to become confident was acknowledged as an issue. Midwife 8 commented that not all her colleagues were '*there yet*', meaning they were not yet competent and able to support water birth, and that '*there is not always a senior person on site who has dealt with water birth before.*'

The positive effect of working with mentors that were supportive of water birth in the year after she qualified was acknowledged by midwife 5 who felt good mentorship had aided and increased her appreciation of this birthing option, she remarked '*But I think I had a good few mentors obviously working in that first year who were pro water births and it just made it normal.'*

As well as mentors having a positive influence, midwives shared how perceived inadequate mentorship could have a negative influence on their journey to build confidence. Midwife 5 acknowledged this influence when she suggested that '*obviously the preceptors (mentors) that you work with because they were the biggest influence for me in my training*'. She then discussed the influence of a less than ideal mentor on building confidence using students as an example but applying it to all midwives learning new skills under the guidance of a mentor:

> '*but I think the confidence in students comes from practitioners definitely or the un-confidence or the undermining of that option will be from your preceptor or your midwife because everyone remembers the really positive preceptor and everyone remembers the negative one. Or the*

> *positive experience to the negative experience. It has to come from us and I think it has to come from the service and the professionals who provide that service.*' (midwife 5)

Midwife 11 clarified how on occasion having 'another midwife in the room' could stifle her confidence to practise autonomously. She described how she felt that she might defer control to the second midwife in some situations:

> '*Yes, definitely. It definitely has an influence. Because you don't know if you can just keep controlling the situation. Sometimes you kind of defer to them [the 2nd midwife] and you want them to take control of the situation so you end up in this weird no man's land where no one's controlling the situation. It's not necessary, I don't think, that you need someone [else] in the room constantly.*' (midwife 11)

A further example of having another midwife in the room not being an advantage was also shared by midwife 7, an experienced midwife. She felt that you should choose your second midwife carefully if you were able to do so depending on the acuity of the maternity ward.

> '*It's more of a negative. You need someone at that second stage because it can happen quite quickly but you need to choose that person carefully and that person also needs to be available at a moment's notice, so it really depends on what's going on in the rest of the ward which can make it difficult*.' (midwife 13)

Midwife 4 enjoyed the autonomy of not having another midwife in the room. Whilst working in a birth centre in the 1990 she was not required to call a second midwife for the birth, which she enjoyed. This midwife was aware that for her the presence of a colleague always had an effect on her practice. She commented that '*somebody else in the room always brings an influence, no matter who or how so that was quite good, the freedom.'* (midwife 4)

The focus group midwives reflected at length on the impact of having another midwife in the room. They acknowledged that in a hospital culture where high risk midwifery in more prevalent and medical intervention is more prevalent; there existed a notable hierarchy of control amongst staff.

> '*When I look back to my training in UK where there is a hierarchy especially on delivery suite … with some co-ordinators they can make you go to pieces… we [CMP] don't have that as we are all supportive of each other, but can see how another midwife in the room would have an effect in a hospital setting.*' (FG)

In comparison the CMP midwives who contributed in the focus group, provide care for low risk women who wish to birth at home which facilitates continuity of care. They felt the culture within the CMP is very different from a hospital setting. The CMP midwives were observed during the interview to be incredibly supportive of each other professionally. They have a minimum of five years post registration midwifery experience and are confident in each other's clinical ability. The role of primary midwife at a birth is clearly defined as that midwife will have been caring for the woman throughout her pregnancy.

The subcategory labelled **another midwife in the room** has shown positive and negative aspects to sharing a water birth experience with a colleague. In a learning situation having an experienced caring mentor by your side will be reassuring and boost confidence. Equally, the presence of a midwife with equal or more experience can be welcome if they are supportive and the lead midwife is established. However, a mentor who is not confident in water birth situation or the role of teacher can be uncomfortable and negative for the midwife learning to support water birth.

Consistent exposure – the challenge

The third subcategory under the major category '***Becoming Confident'*** is labelled '**Consistent exposure – the challenge**'. This subcategory refers to how midwives reported their confidence increased with more exposure to water birth. Regular

opportunities to practice and reinforce their clinical skills increased their confidence to support this option.

Some participants reported that long periods between water births events could jeopardise their growing confidence (midwives 10, 4, 13). In fact, insufficient opportunities to reinforce their learning contributed to their confidence slipping or going backwards in the journey. Midwife 10 described her lack of consistent exposure as taking' *one step forward and sliding down hill waiting for the next opportunity'*. This backward influence on building confidence was however, described to be reduced if participants felt proficient at the skill before the long gap.

Midwife 6, currently employed with the CMP but had previously been a privately practising midwife, estimated more that 80% of the women she cared for birthed in water. When discussing how she became confident she stated; '*you just grow with it and the more you do, the more you feel comfortable and confident.*' (midwife 6)

Similarly another midwife who was exposed to caring for women using water for birth on a consistent and regular basis shared that '*it [waterbirth] wasn't anything unusual and it was always part of the package that was offered to woman, right from the start……. Most days there would be a water birth or someone using the pool for labour*' (midwife 2). When asked what she thought had helped her to feel confident to care for woman who had chosen to labour or birth in water she replied '*Just witnessing so many*' (midwife 2). The importance of regular exposure to practise developing skills was reinforced by another midwife who suggested that '*Lots of exposure'* (midwife 9) was the key to her water birth confidence and midwife 7 felt the same; she said *'I think the more exposure you have to it the better you feel'*.

The midwives who had worked in maternity settings where water births were an everyday occurrence felt that this regular exposure had increased their confidence. One midwife explains how she felt repetition of this skill was useful:

> "*It's like everything that you do more often you cement it into the way you work, if that makes sense. It clicks without thinking once you have*

> *practiced it enough ... It's just doing it and it doesn't sit in your head until you have done it."* (midwife 8)

This midwife also reported how she felt lucky to have cemented her confidence further when she had several positive experiences in a row. '*Initially having a few good ones in a row because I was really lucky in that respect because I got a few really quickly that all went really well.'* (midwife 8)

The midwives who were working in hospital settings and were new to supporting water birth all discussed the consequences of not getting sufficient exposure to this option on a regular basis. Typically they described witnessing one or two and then facilitating a water birth under supervision to be deemed competent in the clinical skill. It could then be several months before they were given the opportunity to attend their next water birth. This was due partly to the small numbers of women using this birthing option in a hospital setting and partly because the ward managers were keen on encouraging as many midwives as possible to complete their competency requirements in the use of water for labour and birth. One midwife from a hospital setting that facilitated water birth clarified how inconsistence exposure had impacted upon her confidence:

> "*it could be another six months before I get another one and the thing with that is because we are trying to get people [midwives] more confident and competent I don't get the birth then as the primary because I am trying to sign someone else off*." (midwife 7)

A similar situation was highlighted by another midwife who worked in a hospital setting. Despite being considered officially competent by her employee to facilitate water birth, she personally felt this clinical skill was not yet within her scope of practice due to the six month gap between one water birth and the next. She explains how her confidence had diminished and she would require supervision by a competent colleague during the second stage of her next water birth.

> *'The competence is you see one, do one and I did all right but then it was six months till I got a lady in the bath and I said I am not confident*

> *enough and I want someone with me for the second stage as I hadn't seen one or done one since then. You know what it's like, you have to do one often enough to keep your confidence and skills up ... for the second stage I wanted someone with water birth competency so don't count on me as being the only competent midwife'* (midwife 9)

This midwife went on to discuss how being deemed competent in a skill she did not feel confident to provide made her feel uncomfortable. She stated: '*I would be happy to give up my competency because I don't deem myself as competent because I haven't done enough to feel proficient in what I am doing.'* (midwife 9). Midwife 9 self-evaluated her confidence to facilitate water birth a 4 on the Likert scale. This issue was discussed with the focus group members, who empathised with the problem of limited exposure on the journey to water birth confidence. One suggested that '*you almost need like a 6 month plan where you have that facilitation till you get to a point where you go - yep - I know what I'm doing now, its clicked - I'm good…'* (FG)

The challenge of consistent exposure was also mentioned by midwife 5 when discussing what she felt would increase her confidence to support women who had chosen to birth their baby in water.

> '*For me it's doing more, like the volume of numbers. The second one I did I felt I am getting this ... But now it's been so long since I did it that it kind of sets me back ... So it would just be doing more of them to get my confidence up.'* (midwife 5)

All the midwives found it difficult to quantify how many water births they saw before feeling confident, or how many they thought they would need to see before becoming confident. Midwives 2 and 9 shared a view that they could not recall a point when they were not confident to support water birth as it was always '*Just birth*' in their opinions. Both these midwives were educated in the UK and received grounding in natural low risk child birth early in their careers. However another midwife discussed how she would like to attend a water birth '*at least monthly until you get to a point where you feel proficient'* (midwife 11), at which point she felt it

would not affect her confidence if she didn't do water birth for 6 months. Midwife 7 had similar views as she had facilitated four water births in recent weeks but when asked how her confidence would be affected if she were not to do another water birth for the next six months, she stated: '*Not less confident ... I definitely would be happy for her to birth in there but I know I would go and speed read the policy just to make sure I still had it in my head.'* (midwife 7)

The challenge of consistent water birth exposure was not an issue for one experienced midwife who felt that due to the amount of water birth exposure she had in her career her personal confidence was no longer transient:

> '*Not now. You know, may be 15 years ago in the first few years of qualifying ... a lot of things that could potentially knock your confidence definitely ... I have the clinical and professional knowledge now and expertise to feel confident in what I know but I also feel confident in verbalising what I don't know and things I am unsure about so I am never put in that position, I will challenge, I will ask.*' (midwife 4)

The focus group midwives discussed whether there was a point when you had seen enough water births to be totally proficient, at which point your confidence would not journey backwards if you have a long period of time between facilitations. One midwife described how just such a scenario had impacted on her confidence.

> *'Depends what you are doing in that interim…when I left the UK I was very comfortable with home birth, water birth and non-intervention. I then spent 18 months at tertiary hospital before joining the CMP. I remember my first witness with the CMP, thinking' she not doing a VE! how will she know if she's fully?. Only 18 months at [tertiary hospital] and I had already lost that confidence or faith. Normal is lost so easily when you are constantly bombarded with interventions…only took a short time, a few witnesses to get back on top and it was all good.'* (FG)

Another midwife from the focus group concurred with her colleague and then went on to discuss how she felt that it was the environment rather than a loss of skill had a negative impact on her confidence to support water birth.

> *'It's not about the skill…you shouldn't forget that, it's like you just said, the minute you're back in that abnormal environment, it's not that you can't do it anymore, it's that it doesn't become second nature to promote that environment anymore and it is about the environment, it's not just about the skill…No matter how normal your training was the moment you step into that high risk setting, it's like you've become brainwashed. They chisel away at your faith in normal and you just can't!! You've not got the confidence anymore to promote that normal environment, so I don't think it's about the skill once you've got it - you've got it forever - because there is so much more involved in it'.* (FG)

The subcategory **consistent exposure – the challenge** has explored the midwives perception of the importance of consolidation and practice on confidence to support water birth. The midwives who had been educated in water birth and shown how to support women choosing this option to a level that they were deemed competent by their employer did not necessarily feel confident. These midwives attributed their lack of confidence to insufficient exposure. When asked to reflect on what had contributed to confidence to support water birth many of the midwives commented on how lots of practise and positive experiences had been influential. When the midwives had achieved sufficient exposure to consider themselves proficient in supporting water birth a lack of regular practice was no longer a factor that diminished confidence.

Another insight that was relevant to this sub category was that the midwives working in an environment that supported midwifery found it easier to achieve the necessary exposure. For the midwives that practised within an environment that promoted natural physiological birth the question of being confident to support water birth did not arise as they could not recall being anything except confident. However, the midwives also noted that when they moved to a maternity setting that was medicalised and their work colleagues were not practising a non-intervention style of

midwifery, their confidence in skill such as water birth designed to support natural birth would wane. Not because they had forgotten the skill or hadn't practised, they felt it was the medicalised environment that diminished their confidence. The next subcategory **inner confidence** examines how personality affects confidence.

Inner confidence

The fourth sub category in the major category '***Becoming Confident – The Journey'*** is labelled **'Inner Confidence'** and is concerned with how the midwives felt that confidence to support the option of water birth reflected their confidence as a person: inner confidence influenced how they could adapt to building this new clinical skill.

Two midwives with more than 15 years clinical experience shared how they had progressed clinically and academically through their careers and now hold senior positions as clinical midwives and clinical educators. Regarding themselves as confident people with a wealth of successful examples of personal growth and development from past experience was transferred to approaching new skills in competently caring for women choosing water birth:

> '*Well, a lot of it is personality. A lot of it is knowing your accountability and scope of practice and putting yourself out there ... And yourself. It's really about nurturing your own confidence. It kind of compounds each other - one doesn't make you more confident and being confident doesn't make you more knowledgeable, it kinds of all runs parallel, all of it interwoven.*' (midwife 2)

A third midwife also discussed her '*inner confidence*' in a similar vein to the example above. She described herself as a confident person who can '*trust first of all my instincts and secondly my clinical skills.*' (midwife 9)

In contrast another midwife who evaluated her personal level of water birth confidence as 5 out of 10 on the Likert scale and had been registered less than 5 years acknowledged that she didn't consider herself a confident person in general and that this would have had an effect on her confidence to support water birth:

> *'Maybe about the confidence every day because I don't feel I am probably not the most outwardly confident person anyway, so I think that affects how confident I feel at a birth just because I don't really feel may be I've got 100% confidence in my work yet.*'(midwife 5)

Inner confidence is the label for the subcategory that acknowledges that some individuals possess personality traits that facilitate how they are more predisposed to developing confidence than others. The next subcategory explores the challenges of being a lifelong learner.

Unlearning – old skills for new

The final sub-category in the major category '***becoming confident'*** is labelled '**unlearning – old skills for new'**. This sub-category explores how many of the midwives who regarded their education as '*old school*' felt that skills had to be '*unlearned*' (midwife 3) to enable them to go forward in relation to the option of water birth. One aspect of birth that is particularly relevant to this option is that of the midwife controlling the head of the baby with her hands during the birth. When attending a birth where the woman is immersed in water it is recommended that the midwife does not touch the baby's head under the water during the birth as this may stimulate the baby to gasp. Many of the midwives educated in the 1970's and 1980's had been taught to control the baby's head with their hands during the birth and some found it challenging to change their practice.

> *'Yes, very strange. Initially it was really hard to keep your hands off ... and I think because you are so used to the hands on, the hardest bit was keeping your hands out of the way and changing practice ... I feel uneasy about water births I think because of that indoctrination at the very beginning that you control the head and I feel – I don't feel I get the same information.*' (midwife 1)

Midwife 1 then explained how she believed that by having her hands on the baby's head she could feel the speed and rate the baby was descending through the birth canal, and could apply pressure to the head to slow the progress if she felt the descent

was too rapid. She believed that this practice would prevent unnecessary perineal trauma.

Midwife 16 shared how challenging she found keeping her hands out of the water and not touching the baby's when she first began supporting water birth, particularly as this was completely different to her initial midwifery education.

> *'found it really, really hard initially to keep my hands off as that was what we were trained to do wasn't it, things are changing all the time with new research and everything but you always have in the back of your mind the way you were initially taught. With water birth it was totally the opposite. I had to hold the edge of the bath or something to keep my hands occupied.'* (midwife 16)

Midwife 5 was recently qualified and felt comfortable with the 'hands off or poised' approach to care that is recommended for water birth. '*The hands off thing doesn't bother me at all really. I quite like talking them through the whole thing ... I try to be hands off on land'*. Midwife 14 was comfortable with not touching the head, in her opinion *'you have to trust that the water is doing the same thing [as your hands would]'*. She recalled how some '*old school midwives still feel the need to check for [nuchal] cord when the head is born, which you can't do in the water obviously'*.

The fact that the difficulty with accepting the hands off approach may be based upon when the midwife completed her education was acknowledged by midwife 1 when she commented that '*the midwives that have been qualified longer will have less confidence [with water birth] just because of how they were taught. The youngsters do hands off in the air anyway now, I was never taught hands off ...'* (midwife 1)

The focus group CMP midwives considered themselves to be a mixture of 'old school' and 'new school' midwives. They felt that it was more to do with personality traits than length of practise that impacted on individual midwives ability to change or 'unlearn'. One commented how '*Some people are excited by research, embrace it and think WOW got new knowledge now!! while other people think … nope … Too hard basket.'* (FG midwife)

The focus group midwives agreed that they felt midwifery is a continuous changing and evolving profession, '*nothing stands still in midwifery'*. They discussed how new research is developed all the time and even after practising for 25 years plus they can learn something new most days and commented that '*when you think you know it all or have seen it all something new comes along'*. The general consensus of the focus group midwives on the topic of 'unlearning' is summed up in the following quote.

> *'A lot of people won't go with change, they think "no this is how we do it - this is how we have always done it" and often they don't seem to have a concept of why they are keeping it like that, or why they are not changing stuff! ... They feel safe in what they know and that's it.'* (FG midwife)

This final subcategory in this major category **unlearning –old skills for new** relates how some midwives that were established in their clinical practice found modifying their management of birth to accommodate the requirements of water birth challenging. The midwives acknowledged that how individuals approached the acceptance of new ideas and evidence was often dependent on personality traits. Some embraced new evidence while others refused to consider alternative options.

Staying confident

Staying confident is the final major category and illustrates factors that the midwives identified as important in staying confident to support women's choice to water birth. This major category has three subcategories**: It's just birth; mothers and midwives enthusing each other,** and **knocking confidence.**

The first sub category labelled '**it's just birth'** portrays how the midwives' confidence is sustained by their belief that birth is a normal physiological event for most women with a low risk pregnancy and that water birth is therefore just an extension of this normal process.

The second subcategory in the major category ***staying confident*** is labelled **mothers and midwives enthusing each other** and describes how birthing in water can make

women feel empowered by the birthing process, and how the immense joy and satisfaction exhibited by the mother sustains the midwives' confidence. This subcategory also explores the powerful influence the midwife has on the labouring woman and the midwives' ability to influence women in their choice around birthing options.

The third and final sub category in the major category ***Staying confident*** is labelled **'knocking confidence'** and explores the effect of possible and actual negative experiences such as obstetric emergencies may have on midwives' confidence to support water birth.

It's just birth

The first subcategory in the major category ***staying confident*** is **it's just birth**. This subcategory denotes how the midwives felt their confidence was sustained by their belief that birth is a normal physiological event for most women with low risk pregnancy and that birth immersed in water is an option that supports a normal process.

Amongst the midwives who had become extremely confident with water birth (self-evaluated their level of confidence on the Likert scale as 10 and the ten midwives in the focus group) was a dominant attitude that water birth was not unusual. It was their view that water birth was no different to land birth; it was in fact '*just birth*' only in water. They were all comfortable and familiar with the option of water birth and it was perfectly normal. The following quote typifies how the midwives who rated their confidence extremely highly viewed water birth as simply another option that should be available for women accessing maternity care services.

> '*I really do not think it [water birth] is a big deal or strange or wonderful … To me, a water birth is exactly the same as a baby born in its own membranes. If the membranes aren't ruptured and it's born in the caul, it's a water birth and that's a perfectly natural thing to happen and then you break the waters and the baby breathes. Water births are the same as that but it comes through the water instead of being born within*

> *the water. So to me it was never a weird thing, it happens anyway in nature, so what's the big deal about it.'* (midwife 9)

A similar opinion was expressed by another midwife who describes water birth as '*nothing unusual, nothing new, just as another option for women ... just being run of the mill familiar, it's no different.*'(midwife 12)

Midwife 3 suggested that colleagues new to using water birth might be encouraged to support this option by viewing it as a natural event. '*we [maternity care providers] can start by bringing it back to basics, to physiological births, to remember that birth actually works fine by'*. Midwife 13 concurs; she believes we must '*trust in the process and know that babies aren't going to drown, trust the physiology'*. She feels that her extreme confidence with water birth is derived from her in-depth knowledge of the physiology of birth. When asked to rate her level of confidence on the Likert scale she said:

> '*Confidence 10/10 if you had asked me 20 years ago before my first one I would have honestly said 8/10, because I had studied up on it and had no qualms. If you were to ask my confidence with land birth I would probably say 8/10. They [water births] are all normal aren't they? ... the ones birthing in water or they wouldn't be in there to start with.'* (midwife 13)

The perception that confidence to support water birth is related to confidence in birth as a normal event was also affirmed by midwife 4, who is an experienced midwife. She concurs that '*a lot of the confidence in doing water births is regaining your confidence in birth as a normal process*'.

This belief that water birth was a natural extension of choices for women who prefer a physiological birth was not exclusive to experienced or confident practitioners. Midwife 7, who did not fall into the experienced and confident group held the same opinion: '*it's just another way of delivering a baby. I don't see it as abnormal, or extra to the birthing process, it's just one of the ways to give birth'*. Midwife 15 had little water birth experience, had seen a few but had yet to facilitate one herself. Her

self-evaluated confidence level was 7 on the Liket scale. She explained; '*don't know what the big deal is ... not worried about it at all ... will have a second midwife in with me as we do for all births ... I think I've seen enough land births not to worry about water births'.*

In contrast, one of the midwives who was very experienced was of the opinion that birthing in water was neither normal nor desirable. This midwife felt that when a woman was in water during the second stage of labour it was more challenging for the midwife to judge what was happening compared to a land birth.

> *'I feel uneasy about water births ... I don't feel I get the same information. I can't see the colour of the baby and I can't see the perineum in the same way and I can't get that tactile information that you know the head is coming up, and you sense how much of the head is there, you sense the outlet and how things are stretching much more on land and although I know that all those things are totally irrelevant I still feel that I would like them to be there.'* (midwife 1)

This same midwife also had concerns with the process of monitoring the fetal heart while the woman was in the bath, and with having to put her hands/arms into the dirty bath water. She was of the opinion that birthing in water was strange: '*very strange. Initially it was really hard to keep your hands out of water and only the fact that I don't like putting my hands in the dirty water made me keep my hands off it'* (midwife 1)

Midwife 1 evaluated her level of water birth confidence as 6 out of 10 on the Likert scale which was the lowest score of the experienced midwives.

This subcategory **it's just birth** has illustrated how the midwives confidence to support water birth was highly improved when they were also confident in supporting a natural physiological birth. To these midwives water birth was just an extension of the fundamental skill of midwifery, being with woman during labour and birth. The midwife who felt uneasy about water birth had a need to be in control of the situation whereas the midwives that were confident in water birth were equally

confident in natural birth so they were happy to let nature take its course. The next subcategory describes the impact mothers and midwives have on each other's confidence.

Mothers and midwives enthusing each other

The second subcategory in the major category '***Staying confident'*** is labelled **'mothers and midwives enthusing each other'** and describes how water birth can make women feel empowered by the birthing process. The immense joy and satisfaction exhibited by the mother also has a positive influence on the midwives confidence and this positivity appears to sustain the midwives' confidence. This sub category also explores the powerful influence the midwife has on the labouring woman and the midwives ability to open women's eyes to birth options they may not have previously considered.

Midwife 7 expressed an opinion that you needed to be '*little bit in love with birth to want it*' [confidence to facilitate water birth]. With one exception, all the midwife participants enjoyed caring for women while they laboured and/or birthed in water. Midwife 7 used the word '*privileged*' to describe her role as a water birth facilitator. Another midwife describes how she enjoys witnessing the mother's elation when supporting water birth: *'That look on the woman's face when she has done it herself, achieved the birth hoped for, because that's what it is, the woman has done it herself. And you just sit there and coach'* (midwife 11*).* Another midwife had similar views; she described how caring for a woman in water made her feel empowered as a midwife:

> *'The woman is at the centre of everything and she is in control. It just seems like she knows more what she is doing and you are just there for support. You feel that you are doing your job properly, not looking at ten thousand machines or trying to write stuff down just kind of watching her do her thing*.' (midwife 12)

The perceived benefits of using water immersion for labour and birth were evident from another midwife's comments; she felt this option improved the woman's mobility during labour:

> *'And water does make a big difference. I don't know if it changes the pain a huge amount, but when a woman gets in that water, you usually get that, Oooh, this is lovely ... they can move easily, and as soon as they get a contraction or a surge whatever you want to call it, they can change position easily because when you are on a bed, it's so hard to move when you're pregnant so I think the water just facilitates ease of movement and change of position.'* (midwife 11)

Midwife 2 relates in an enthusiastic and joyful manner the reactions she has observed from mothers and their labour support people to water birth. She proclaims '*Amazement, wonderment*' and recalls how they '*can't believe what they have seen from the baby perspective ... the moving, the lips, the eyes opening*'.

Another midwife reports a home water birth she attended as the second midwife, where she walked quietly into the room to find the woman in the pool surrounded by her three children, husband and close female friends. The midwife describes a tranquil relaxed atmosphere with the children watching a video:

> *You wouldn't have known she was in labour and she just bent down and picked this baby up out of the water and the midwife had not done a thing – not moved. And I remember thinking 'Oh my goodness, that was so beautiful ... I felt totally privileged to have witnessed that.'* (midwife 4)

This same midwife remembers that when she first started supporting water births in the UK in the early 1990's she would use the birthing pool more regularly than many of her colleagues because she enjoyed witnessing water birth. '*I was doing far more than anybody else. I loved them, and lots of midwives were very anti water birth and it was it was a real battle sometimes to get them to care for them in water*.' (midwife 4)

Midwife 16 discussed how the feedback from the women increased her confidence and enjoyment of using water immersion. She found that '*they [the women] are getting the experience they want from the water,* 'and this resulted in her feeling empowered as a midwife; she described seeing women:

> *'So overwhelmed with the experience they had and grateful for how it worked out. They say they have coped a lot better ... I think its empowering as well for the midwife looking after them as they seem to have that extra trust in you as a midwife because you are in this little capsule of woman partner and midwife.'* (midwife 16)

As mentioned previously midwife 1 did not enjoy birthing babies in water. She was, however, happy and comfortable to care for women using water immersion during the first stage of labour, it was only during the second stage that she felt unhappy facilitating this option. She explained '*No, it's just the birth. Labour in the water is fabulous and I think that's great and doesn't hold any problems for me at all.*

Midwife 1 would prefer the woman to get out of the pool for the second stage and is aware of the influence she as a midwife has on the labouring woman. The midwife is aware that her personal preferences may lead her to steer the woman out of the water and is also concerned she may over compensate for this.

> '*I'm always conscious that maybe I'm looking for excuses to get the women out of the water because I'm not confident. I sometimes hold back thinking I really should get this woman out because this is a bit of a tachycardia, I should get her out and put her on the monitor but am I doing it because I want her to get out of the pool, I don't want to do a water birth so in a way I think it does affect my judgement. I don't want to get them out too soon for my benefit so I tend to leave them in longer than I should, sometimes, I think.*' (midwife 1)

Appreciation of the influence a midwife can have on a labouring woman was shared by midwife 6 who was concerned that her enthusiasm for water birth may influence

woman to get into the pool when it was not something they had planned or desired before labour.

> '*And sometimes I feel that doing a water birth with someone who has just stepped into the bath and hadn't actually thought about [having] a water birth ... there's that bit of anxiety to think is this really what they want ? ... do they think that you had persuaded them.*' (midwife 6)

In the following scenario midwife 6 recalls taking over the care of a labouring woman who asked her if she could have a land birth instead of a water birth. The labouring woman seemed to feel the midwife would prefer her to stay in the pool.

> '*I remember one particular client that I took over from a colleague and the woman said to me do you mind if I don't have a water birth. So I said, no, of course I don't mind. You can have a land birth if you want one. And she said that the previous midwife was very anti me having a land birth, which was interesting, and she didn't want a water birth at all*.' (midwife 6)

These midwives both had previously worked for the CMP where the majority of the home births take place in water making water birth the norm and land birth the exception.

The subcategory **mothers and midwives enthusing each other** illustrate how positive personal experience has a great influence on the development of confidence from the midwives perspective. Time spent observing the woman during labour and birth in water had demonstrated to the midwives the benefits of relaxation, buoyancy and the ability to cope that the water provides. This personal positive experience increased the midwives confidence in the birthing option. The midwives noted that they needed to check their own views on water birth on occasion. This was because they were aware the influence they had on the women in their care could impact on decision making. The final subcategory investigating factors that can have a negative effect on confidence is called **knocking confidence**.

Knocking confidence

The final subcategory in the major category '***'staying confident*** is labelled **'Knocking confidence'** and conveys situations that the participants have reported as having (or anticipate would have) a negative effect on their confidence. All the midwives who had not experienced any adverse events such as obstetric emergencies in a water birth had concerns that such an event my affect their confidence in a negative way. A typical example of this fear was expressed by midwife 5:

> *'I think if the baby came out in not good condition, ... I think if there was poor Apgar or something I would think, did I miss something, was she pushing in the water for too long, I would probably question myself'*

Another midwife, with a similar level of experience and confidence as midwife 5 found that when she did witness an emergency situation in the pool the knowledge that she had successfully managed this event actually increased her confidence.

> '*when something goes wrong to have the confidence to know instantly what to do, so as a student seeing when things did go wrong and how it was managed, that gave me confidence*.' (midwife 5)

Midwife 10 explained why the possibility of managing an obstetric emergency in the water was more confronting than the prospect of managing a similar situation in a land birth.

> '*when you are so used to being in a situation where you can access the baby quite easily if you need ... .to do manoeuvres and stuff, quite often when the woman is in the bath you are not in a position where you can do that.*' (midwife 10)

Midwife 16 explained how when her confidence was knocked by an event it took a positive experience to restore her confidence.

> *"some things can knock your confidence, every now and then when you have something that doesn't go exactly as it should ... you know you have*

> *a deceleration or big blood loss or something and that kind of knocks your confidence a little bit ... it's not till you get back on there and have another nice normal water birth that you think, yeah that's good, I can do it."* (midwife 16)

One of the focus group midwives concurred with the opinion that after a negative experience it helps to have a few positive water births. '*I remember having a really flat baby one time following a water birth ... I got over it by seeing lots of nice ones, but I was a bit jittery for a wee while!'* (FG midwife)

Another midwife relates how she felt she was '*too far down the track*' for obstetric emergencies to affect her confidence to facilitate water birth. She recalled a recent neonatal resuscitation following a labour in the pool at a home birth. Experience told her that the baby's condition was not related to the mother being in the pool and her clinical skill enabled her to successfully resuscitate the neonate.

> '*the baby was born really, really, shocked ... as soon as I had dried him and stimulated him and bagged him for thirty seconds he just picked up fantastically and that didn't knock my confidence either but I think that's the experience I've got.'* (midwife 4)

Another midwife agrees with the sentiment that she has gained enough experience to not have her confidence knocked by adverse events,

> *'You know, may be 15 years ago in the first few years of qualifying there are a lot of things that could potentially knock your confidence definitely, you know being challenged, being an adverse outcome that's not your fault but bad things happen in health and especially in obstetrics ... I wouldn't say my confidence is transient anymore.'* (midwife 2)

Another midwife's experiences contrasts with the two previous examples. She feels that the shoulder dystocia she experienced while caring for a woman in the bath knocked her confidence, despite her longevity as a midwife. She acknowledges that adverse events in the pool will affect her confidence whereas similar emergencies on

land do not have the same effect. This midwife has never enjoyed facilitating water birth and never felt confident to do so.

> *'I did have a fairly grim shoulder dystocia in the pool where I had to get her to stand up and we really struggled to get this baby out so then I was back to square one again. It seems to knock my confidence more in the water than it does in the land. I can have a bad land birth and not traumatise about it but if I've got a bad water birth like I had a baby in the week with a pneumothorax and I knew it had nothing to do with the fact that it was born under water but again that knocked my confidence completely but if that had been a land birth I would have just thought that, oh well, that's just one of those things.'* (midwife 1)

Midwife 14 discussed a colleague who is a very experienced water birth facilitator and skilled midwife who had recently experienced a greater that average amount of shoulder dystocia in and out of the birthing pool. Midwife 14 described observing her colleague's unease at subsequent deliveries and low thresh hold for action if the baby wasn't born with the next contraction:

> '*you can see her getting toey if the shoulders aren't born immediately, she rubs the fundus to encourage the next contraction and will get the lady to stand and deliver if the baby hasn't birthed after 1 contraction ... other midwife may wait for a second contraction, and if the toey midwife is your 2nd mid wife at a delivery you can sense her getting anxious in your peripheral vision ... slightly off putting ...*' (midwife 14)

The final subcategory **knocking confidence** has shown that midwives perceive that an adverse clinical event during a water birth may have a negative effect on confidence to support this birthing option. A midwife who recalls participating in actual adverse events found the contrary as witnessing how well clinical situations were managed within a pool environment increased her confidence. There was an acknowledgement from the midwives that witnessing negative experiences would affect your confidence for a while, but subsequent positive experiences would usually in time override the negative influence.

Summary

This chapter has presented the findings of this study. The three major categories labelled ***what came before the journey, becoming confident - the journey*** and ***staying confident*** were presented. Each of the three major categories contains between three and five subcategories which have been combined to inform the major category titles. The content of each subcategory has been illustrated using quotes taken from the verbatim data do demonstrate and justify how each subcategory was conceived. The combined major and sub categories have addressed the objectives of this study which were to:

1. To explore and describe midwives' perceptions of the phenomenon of professional confidence'.

2. To explore factors identified by midwives as enhancing and as inhibiting the process of becoming confident.

The findings of the study are now compared to and considered against existing literature, theories and evidence in chapter five.

CHAPTER FIVE – DISCUSSION CHAPTER

Introduction

The final chapter of this thesis begins with a summary of the study findings that were presented in detail in chapter four. These finding are then discussed alongside existing literature of similar content and themes in order to achieve a greater understanding of the phenomenon of professional confidence to support water birth in public health services in Western Australia (WA). Factors that the findings suggest may enhance and inhibit the development of professional confidence are then considered. The requirement to consolidate a new skill in order to feel confident and develop skill mastery is explored, as is the impact that other colleagues have on an individual's professional confidence. This is followed by an examination of the processes midwives face as they strive to continuously develop professionally and how the maternity environment has a great impact on midwives confidence to support normal physiological child birth. The chapter concludes with recommendations for strategies to support the development of professional confidence to support water birth.

Summary of findings

The combined major and subcategories presenting in the findings of this study have addressed the purpose of exploring, explaining and describing the phenomenon of confidence from the perspective of midwives supporting women who have chosen the option of water birth within the public health services in WA. The findings highlight three major categories that reflect responses to the guiding objectives which were to explore and describe midwives' perceptions of the phenomenon of professional confidence', and to explore factors identified by midwives to enhance and inhibit the process of becoming confident. The study findings have revealed three major categories labelled ***what came before the journey, becoming confident - the journey*** and ***staying confident.*** Each of the three major categories contains between three and five subcategories which, when combined, form the essence of the major category. The content of each subcategory was illustrated in chapter four using quotes from the participating midwives.

The first major category labelled ***what came before the journey*** contained three subcategories. The first subcategory, **attitude to water birth,** suggests that the midwives had preconceived opinions about water birth before their initial personal encounter. Their opinions were based on social persuasion and cultural influences. These preconceptions did not impact on the midwives ability or willingness to develop confidence to support this birthing option when the opportunity arose. Ultimately, negative preconceptions were overridden by personal experience and positive attitudes were reinforced. The next subcategory within this major category was **midwifery initiation.** This subcategory presented how the midwives believed being immersed in a culture that promoted a natural birth philosophy had a positive impact on their confidence to support water birth. The midwives also noted how the 'old school' midwifery culture of the 1970s and '80s discouraged them from critical thinking and reflective practice. The midwives participating in this study appreciated that their initial midwifery education remained influential to them and contributed to their on-going attitudes and clinical judgements. The last subcategory in this major category was **water birth education.** This subcategory revealed how all the midwives who had participated in water birth education prior to their initial personal experience found this beneficial. Midwives who had received no prior education managed to learn on the job, and some resented this lack of formal training whilst others were accepting of it.

The second major category that was identified was ***becoming confident - the journey.*** This major category contains five subcategories, the first being **trust in the guidelines**, which shows how the midwives relied on the guidelines particularly when learning to support water birth. They reported how confidence was boosted by having rules to work within that ensured safe practice. The second subcategory, labelled **another midwife in the room**, highlighted how sharing a water birth experience with another midwife can be either positive or negative. In a learning situation, having an experienced, caring mentor by your side was seen as reassuring and a boost to confidence. However, a mentor who is not confident in a water birth situation or in the role of teacher can be uncomfortable and a negative influence on the confidence of the midwife learning to support water birth.

The next subcategory, **consistent exposure – the challenge**, illustrated the midwives' perceptions of the importance of consolidation and practice on confidence to support water birth. This study has shown that midwives who were deemed competent did not feel confident without consolidating their learning through practice. Midwives who were working in a hospital setting found the acquisition of confidence more challenging to achieve as the opportunities to practice were less frequent. This finding was further confirmed by confident midwives' reflections that the exposure to a considerable amount of practice and positive experiences had been influential in development of their confidence. When the midwives had achieved sufficient exposure to consider themselves proficient in supporting water birth, a lack of regular practice was no longer a factor that diminished confidence.

The sub category **consistent exposure – the challenge** also revealed that midwives working in an environment that supported low intervention found it easier to achieve the necessary exposure. For the midwives who practised within an environment that promoted physiological birth the question of being confident to support water birth was not an issue as they could not recall being anything except confident. However, these midwives also noted that when they moved to a maternity setting that was medicalised wherein their work colleagues were not practising a non-intervention style of midwifery, their confidence in skills such as water birth which promotes natural birth would diminish. This was found to be not because they had forgotten the skill or hadn't practiced, but because the medicalised environment inhibited confidence.

The next subcategory, **inner confidence**, acknowledges that some individuals possess personality traits that may contribute to them being more predisposed to developing confidence than others. The participants felt that innate confidence influenced their ability to development professional confidence.

The final subcategory under the major category of ***becoming confident - the journey*** is **unlearning – old skills for new.** This relates how some midwives who were established in their clinical practice found modifying their management of birth to accommodate the requirements of water birth challenging. How individuals approached the acceptance of new ideas and evidence was often dependent on

personality traits. Some embraced new evidence while others refused to consider alternative options.

The final major category was called ***staying confident***, and encompassed three sub categories. The first subcategory was named **it's just birth**, and illustrated how the midwives' confidence to support water birth was greatly improved when they were also confident in supporting a natural physiological birth. For these midwives, water birth was just an extension of their primary role of supporting women during labour and birth. They did not consider the option of water birth unusual or different and therefore, confidence was not a separate issue. The next subcategory, labelled **mothers and midwives enthusing each other**, outlines how positive personal experience had a great influence on the development of confidence from the midwives' perspective. Positive feedback and observations of women during labour and birth in water reinforced the benefits that water birth could provide. This personal positive experience increased the midwives' confidence in the birthing option. At times their enthusiasm needed to be restrained as the informed choice of the woman took priority over the midwives' preference. The final subcategory investigating factors that can have a negative effect on confidence is called **knocking confidence**. This subcategory revealed that if midwives expected adverse clinical incidents during a water birth, this attitude could have a negative impact on confidence to support this birthing option. However, a midwife who recalls participating in actual adverse events found the contrary: witnessing how well clinical situations were managed within a pool environment increased her confidence. There was an acknowledgement that witnessing negative experiences could affect confidence temporarily, but subsequent positive experiences could make confidence return.

The findings identified from the data will now be interpreted and discussed in conjunction with other evidence relating to similar concepts from existing literature, theories and evidence.

Enhancing and inhibiting the process of becoming confident

A main objective of this study was to explore factors identified by midwives as enhancing or inhibiting the process of becoming confident to support women who had chosen the option of water birth. This study has revealed how social, cultural and environmental influences have impacted both on the enhancing and inhibiting the development of professional confidence. Factors that have been identified as influential are now described, explored and discussed in conjunction with theories and evidence from existing literature.

The power of repeated positive experiences

The findings from this study have identified a major category ***becoming confident – the journey***, that describes what midwives felt influenced their development of confidence as they began supporting women choosing water birth. Within this major category is a sub category labelled **consistent exposure – the challenge** which refers to how sufficient regular exposure to water birth, particularly whilst learning this option, impacted on the midwives developing and retaining professional confidence in this skill. The midwives who had worked in maternity settings where water births were an everyday occurrence reported how regular exposure had positively influenced their confidence. In contrast the midwives who worked in settings where water births were a new and sporadic event all discussed the negative effect on their confidence of not having sufficient exposure to water birth on a regular basis. The necessity of regular exposure to a task during learning was theorised by psychologist Bandura (1977). He proposes that performing a task repeatedly with a positive outcome is necessary in order to increase self-efficacy. Bandura describes how the most effective way of developing a strong sense of self-efficacy is through mastery experiences, repetition until the skill is mastered (Bandura, 1977). This is because mastery is based on experiences that are direct and personal, and usually attributed to one's own effort and skill. Performing a task successfully strengthens the sense of self-efficacy. The assertions from Bandura's social learning theory concur with the findings of this study.

The subcategory **mothers and midwives enthusing each other** illustrates how positive personal experience can have an influence on the development of confidence from the midwives perspective. Repeatedly observing the woman as they progressed successfully through the stages of labour, while immersed in water, served to increase the midwives' confidence in the birthing option.

Other literature that supports the findings from subcategories **consistent exposure – the challenge** and **mothers and midwives enthusing each other** includes the work of White (2009) and Perry (2011). Both authors discussed how experience was an antecedent of self-confidence in their concept analysis. Arguments from both papers agree with the findings of this study and acknowledge that regular repeated exposure, which is positive and affirming can be instrumental in the development of confidence. White (2009) and Perry (2011) recommend that experience is cultured into the clinical setting environment of nursing students as repeated exposure to clinical tasks are shown to precede the acquisition of confidence /self-confidence in that task. A critical discourse analysis carried out in the UK by Russell (2011) showed similar findings as in this study in relation to the negative effect of insufficient exposure to water birth and the development of confidence. Participants in Russell's study felt that most labour ward midwives lacked the necessary skills to facilitate water birth because of limited opportunities to witness or learn about this type of practice.

The subcategory **consistent exposure – the challenge** also illustrated how midwives who were deemed competent did not feel confident without consolidating their learning through practice. Midwives who were working in a hospital setting found the acquisition of confidence more challenging to achieve as opportunities to practice were less frequent. This finding was further confirmed by confident midwives' reflections that sufficient practice and positive experiences were influential in the development of their confidence. When the midwives had achieved sufficient exposure to consider themselves proficient in supporting water birth, a lack of regular practice was no longer a factor that diminished confidence. This finding is support by the work of Benner (1984) who describes the pivotal role of experience and exposure in the transition from novice to expert. Beginners with no prior experience of a situation in which they are expected to perform are taught to manage

the situations in terms of objective attributes (Benner, 1984) which in the context of this current study of water birth would be observations such as temperature, pulse, fetal heart rate, blood pressure and other such objective measurable parameters of the woman's and baby's condition. These parameters are essential to give a novice entry to these situations and allow them to gain the experience so necessary for skill development (Benner, 1984). When given parameters, beginners are able to recognise features that are outside the normal limits without any prior situational experience. This rule- governed behaviour is limited and inflexible, but completely necessary as novices have no prior experience to guide their performances (Benner, 1984).

The comfort and reassurance that Benner (1984) suggests a novice finds in following rule-governed behaviour whilst learning was supported in the findings of this WA study. The midwives interviewed discussed in the major category ***Becoming confident – the journey***, how **trust in the guidelines** had a positive impact on their level of confidence as they were becoming familiar with the option of water birth. The midwives recalled how as students and early career midwives they would refer to the clinical guidelines and 'follow them pretty much to the T' as a 'safety net'. The reliance on guidelines concurs with the findings of another recent Australian study exploring midwives confidence to counsel obese pregnant women (Biro et al., 2013). This cross sectional online survey (n=335) revealed how the midwife participants who used the clinical guidelines were more likely to report adequate comprehensive education and training and greater confidence to counsel obese pregnant women. One conclusion from this Australian study was that the universal use of a clinical guideline may have a positive impact by helping midwives to base early care decisions on clinical evidence (Biro et al., 2013).

Benner (1984) describes the transition from novice to advanced beginner in terms of the acquisition of 'aspects of the situation' (p.28). Benner clarifies the term 'aspects' to mean the ability to apply learning from prior experience gained within a similar situation. For example when assessing the temperature of the birthing pool a novice would be keen to adhere to any water temperature that fell in the range recommended in the guidelines, whilst the advanced beginner may have personally observed the importance of gauging the pool temperature on the woman's personal level of

comfort as well as the guidelines, to enable her to remain in the birthing pool for a long period of time. Such 'aspects of the situation' are learned as a result of personal experience. This stage of professional development as described by Benner (1984) in her book concurs with the findings of **trust in the guidelines,** where a novice midwife noted her confusion as she witnessed an advanced colleague's more flexible approach to the rule governed behaviour that she was practising. The midwives within this study reported how they would return to the guidelines and reread them, or refresh their memories when they were required to support a water birth, particularly after a significant period of time had lapsed since the last occasion. Returning to the support of guidelines suggests that they were still following the rule-governed behaviour of the novice or advanced beginner as suggested by Benner's theory, which outlines the progression from Novice to Expert (Benner, 1984). The fact that these midwives were slower to progress from the level of novice or advanced beginner to proficient or expert in supporting water birth could be due to this lack of exposure they reported in subcategory **consistent exposure – the challenge**.

The findings from this study have highlighted how challenges in getting practice opportunities due to limited exposure inhibited the development of confidence to support water birth whilst learning. The influence of these challenges is further supported by Walker et al (2013) work. These Australian researchers investigated changes in the confidence and knowledge of doctors and midwives to manage specific obstetric emergency situations pre- and post- completion of the Advanced Life Support in Obstetrics (ALSO) course. Their findings confirm how confidence and knowledge was high immediately post-course where participants had practiced the skill in scenario settings, but dropped significantly six weeks post course without regular practice. The authors concluded there was a need for some means of reinforcing the effects of the course for longer term maintenance of knowledge and confidence (Walker et al., 2013).

Another finding from the subcategory **consistent exposure – the challenge** is that once the midwives interviewed felt completely proficient or expert in supporting water birth their confidence was more resilient and not as reliant on continual practice or reinforcement. They felt that if they did not have the opportunity to

practice the skill of water birth for a significant period of time it would not have the same negative influence on the confidence of the proficient/expert midwife. This finding is also supported by Benner (1984) who describes the five stages of skill acquisition as novice, advanced beginner, competent, proficient and expert. Benner proposes how over time nurses develop an experienced based ability to recognise a whole situation. This is the stage of skill development labelled proficient. The proficient nurse can now recognise when the expected normal picture does not materialize (Benner, 1984). The crucial role the proficient / expert midwife has on the development of confidence within her colleagues is now discussed.

The influence of social modelling and the need to choose mentors wisely

The second subcategory within the major category ***becoming confident - the journey*** is labelled **another midwife in the room.** This subcategory reveals how sharing a water birth experience with another midwife can be either positive or negative. In a learning situation having an experienced, caring mentor by your side was seen as reassuring and a boost to confidence. However, a mentor who is not confident in a water birth situation or in the role of teacher can be uncomfortable and have a negative influence on the confidence of the midwife learning to support water birth. This WA study has shown that the majority of the midwives shared positive remarks about the mentors they have worked with during their careers. A mentor is an experienced midwife who works alongside students and junior midwives in a clinical setting. It is the mentor's role, according to the Code of Ethics for Midwives in Australia, to supervise support and educate student and junior midwives when they are learning new skills in a clinical setting (Nursing and Midwifery Board of Australia, 2008). For many of the midwives participating in this study the presence of a confident mentor while they were learning and becoming confident to support water birth was reassuring.

Evidence from the field of psychology has also supported the findings of this study in that it confirms that other people are influential in the development of confidence in one's self (Bandura, 1977). Bandura proposed in his social learning theory that there are four sources of self-efficacy. The first, mastery experience, was discussed earlier in this chapter. The second and third of the four sources of self-efficacy are

labelled social modelling and social persuasion; they relate to the impact of another individual. Bandura asserts that social modelling enables self-efficacy; seeing people similar to oneself succeed by sustained effort raises the observer's belief that they too have the capability to achieve success (Bandura, 1977). The third source of self-efficacy is social persuasion, in which Bandura asserted that people can be persuaded by a third person to believe that they have the skills and capabilities to succeed. Self-doubt can be overcome by receiving verbal encouragement from other people, enabling the individual to focus instead on giving their best effort to the task at hand (Bandura, 1977).

Evidence from other qualitative research confirms how students require positive relationships with their mentor, which make them feel welcomed, included, and valued in the ward. This positive student/mentor relationship improved their motivation, self-confidence, and self-respect (Chesser-Smyth & Long, 2013; Dae et al, 2013; Jordan & Farley, 2008; Ronsten et al, 2005). Conversely, a study investigating the development of self confidence in Irish nursing students found that self-confidence was quickly eroded by poor preceptor attitudes, lack of communication, and feeling undervalued (Chesser-Smyth & Long, 2013). These consequences of having a poor mentor concur with the findings from this study in that the confidence exhibited by the mentor supervising was reported to have a negative impact on midwives as they learned to support water birth. For many of the midwives participating in this study, the presence of a confident mentor while they were learning and becoming confident to support water birth was reassuring. The findings illustrate how a confident mentor would make the midwife with limited water birth experience feel more confident in her practice. However a mentor who was not confident with her own practice concerning water birth could make the less experienced midwife feel anxious in this situation. The midwives shared how they found inadequate mentorship could inhibit their journey to build confidence.

This study has highlighted, in the subcategory **consistent exposure – the challenge**, that as water birth is a relatively new option for WA women, particularly in a hospital setting, there are many very experienced midwives who have never attended a water birth. The WA context represents a situation in that experienced midwives may be mentored and supervised by midwives who have less overall clinical

midwifery experience than them but who had achieved competency in supporting water birth. The participants in this study inferred that this situation could be uncomfortable for all concerned. Benner (1984) identifies that students are not the only novices: “any nurse entering a clinical setting where she or he has no experience with the patient population may be limited to novice level of performance if the goals and tools of patient care are unfamiliar” (p 21). The midwives described how this fact added to cultural hierarchical complexities for the less experienced midwives participating in this study, particularly in maternity settings where a culture of natural physiological birth was not dominant.

The crucial influence that experienced mentors have on learning, described in subcategory **another midwife in the room,** is reflected in the findings of an Australian study by Ferguson (2011). Insight into newly qualified nurses’ experiences of developing clinical judgement in professional practice is the objective of this qualitative study. Using Grounded Theory as the method of data collection, analysis, and theory development, a total of 25 newly qualified nurses were interviewed. The study showed how newly qualified nurses sought out experienced nurses as mentors who exhibited specific characteristics, and who they anticipated would assist them in developing their practice knowledge. New nurses indicated that their more experienced colleagues became their learning network in practice, and facilitated their acquisition of practice knowledge as well as their knowledge of the organisational culture (Ferguson, 2011). Although they could have gained the same knowledge through their own experience over time, the demands of the workplace forced them to seek competency in practice as quickly as possible. This need to achieve competency and confidence promptly was similar to the experiences the midwives described in this study; they felt pressured to complete the water birth competency quickly so they were able to offer water birth safely to women who chose this birthing option. Ferguson (2011) found that newly qualified nurses needed senior nurses’ experiential knowledge and were dependent on mutual engagement in the workplace to develop their professional identities and practice knowledge. The midwives in this study describe the same characteristics from their mentors who have enhanced the development of their confidence to support water birth. Newly qualified nurses needed a supportive learning network for development of their clinical judgement, and mentors who were able to provide the context for that

support. Newly qualified nurses chose mentors who were strong role models, who demonstrated the kind of nursing care to which they aspired, and who were open to the role of being a mentor (Ferguson, 2011).

The findings from this study and the literature around mentoring and skill acquisition have supported the importance and profound influence of the mentor on the midwife's confidence when learning to support women choosing water birth. For this reason mentors who are experts in water birth, who are not only competent but also confident in this skill should be employed. This positive mentorship should continue beyond the initial few water birth episodes, and the hospital requirement of competency until the trainee also feels confident to support this birthing option. It is clear from the findings of this study and the literature that the water birth trainee should not be called upon to supervise her colleagues until she feels confident in her own ability.

The challenges of embracing lifelong professional learning

Another challenge the midwives in this study faced in developing confidence to support water birth relates primarily to midwives with many years of maternity experience in a clinical setting. The major category *'**becoming confident'*** contains a sub-category labelled **'unlearning – old skills for new'**. This sub-category explained how many of the midwives who regarded their midwifery education as '*old school*' felt that skills had to be '*unlearned*' to enable them to go forward in relation to the option of water birth. When attending a birth where the woman is immersed in water it is recommended that the midwife does not touch the baby's head under the water during the birth as this may stimulate the baby to gasp (Department of Health, 2009). Many of the midwives educated in the 1970's and 1980's had been taught to control the baby's head with their hands during the birth and some found it challenging to change their practice. It was apparent from the finding in the first major category of this study labelled ***what came before the journey***, that the midwives interviewed were strongly influenced by their **midwifery initiation**. All the midwives interviewed referred to their early education in a manner that suggested it was incredibly influential in shaping their attitude to how they practise clinically as a professional. The terms '*indoctrination*' and '*drummed into you*' were used to

describe the learning methods that were commonly adopted in their initial midwifery education. Some of the ‘old school’ midwives found it hard to adopt a clinical practice that was so opposite to their initial education, whereas other midwives found the transition seamless.

The Conscious Competence Learning Model can be used to explain why some experienced midwives found this unlearning of old skills so challenging. The exact origins of this model remain unknown, but it was first clearly defined by Noel Burch who worked for the US Gordon Training International Organisation in the 1970s (Burch, 1970). Within this model it is proposed that the learner passes through four quadrants of learning. The first is labelled unconscious incompetence. In this quadrant the learner is unaware of a lack of a particular skill. The next quadrant, conscious incompetence begins when the learner realises the importance of a skill but fails in trying to do it. Conscious competence follows when through practice the learner can now do the skill but has to think about each step. Unconscious competence is the final quadrant in when the learner can perform the skill effortlessly without much conscious thought equals mastery. Burch (1970) describes how the learners can feel uncomfortable during the conscious incompetence and conscious competence phases. Unconscious competence or mastery can only be achieved through repeated practice, at the conscious competence stage which concurs with the finding of the subcategory **consistent exposure - the challenge** that was discussed earlier in this chapter. Once unconscious competence has been achieved feelings of discomfort or being unconfident fade away.

Within the Conscious Competence Learning Model (Burch, 1970) the novice must progress consecutively from stage one to four. It is not possible to jump stages. For some skills, especially advanced ones, people can regress to previous stages, particularly from four to three, or from three to two, if they fail to practise and exercise their new skills. The importance of practice is also supported in our findings from the subcategory **consistent exposure - the challenge** discussed previously in this chapter. A person regressing from four, back through three, to two, will need to develop again through three to achieve stage four - unconscious competence again. This aspect of the conscious competence learning theory does not correspond with the finding from this study in this respect as the midwives reflected in subcategory

consistent exposure - the challenge they were able to remain at the expert or fourth quadrant of skill level, unconscious competence without regular practice (Burch, 1970). This learning model suggests that for certain skills, in certain roles stage three (conscious competence) is adequate and may actually be more desirable. That is because learners who become skilled at level four - unconscious competence - cease to be learners and can be vulnerable to complacency, by which learning ceases and 'unconscious competence' may in time become an ignorance of or blindness to new methods, technologies, or evidence and the expert finds himself once again unconsciously incompetent (Burch, 1970).

The major category '***becoming confident***' contains a subcategory labelled **'unlearning – old skills for new'** which explained how many of the midwives who had been practising their craft in clinical settings for several decades found adjusting their style of practice to encompass the requirements of water birth made them feel uncomfortable. As noted previously, when attending a birth where the woman is immersed in water it is recommended that the midwife does not touch the baby's head under the water during the birth as this may stimulate the baby to gasp. These self-labelled 'old school' midwives had been taught to control the baby's head with their hands during the birth and some found it challenging to keep their hands out of the birthing pool. The experienced midwives in this study reported how the introduction of the option of water birth had impacted on their comfortable and established clinical skills (unconscious competence), making them regress to stage three (conscious competence) whereby they had to think about, consider, and make conscious decisions regarding their actions when supporting a woman who had chosen the option of water birth. This regression made the experienced midwives feel uncomfortable and affected their professional confidence, particularly when their colleagues with less overall clinical midwifery experience had progressed further along the stages of learning as suggested in this Conscious Competence Learning Model (Burch, 1970).

How each individual manages the challenges of this stage regression may depend on many factors such as brain-type, personality and life-stage/experiences (Keller & Karau, 2013). These factors affect attitudes and commitments towards learning as well as an individual's ability to develop competence. People begin to develop

competence only after they recognise the relevance of their own incompetence in the skill concerned (Burch, 1970). Certain brain-types and personalities prefer and possess certain aptitudes and skills (Keller and Karau, 2013). Some people will resist progression even to what Burch (1970) describes as stage two (becoming aware of incompetence), because they refuse to acknowledge or accept the relevance and benefit of a particular skill or ability. Denial may also be a factor where there is a level of personal fear or insecurity. Other people may readily accept the need for development from one to two, but may struggle to progress from two to three (becoming consciously competent) because the skill in question is not a natural personal strength or aptitude. Some people may progress well to stage three but will struggle to reach stage four (unconsciously competent), and then regress to stage two (consciously incompetent) again, simply through lack of practice (Burch, 1970).

The midwives in this study also agreed with the findings that personality and inner confidence had an influence on their own and their colleague's ability to develop confidence to support water birth. The fourth sub category in the major category '***Becoming Confident – The Journey'*** is labelled '**Inner Confidence**' and is concerned with how the midwives felt that confidence to support the option of water birth reflected their confidence as a person: inner confidence influenced how they could adapt to building this new clinical skill. The midwives in this study who had progressed clinically and academically through their careers and now held senior positions regarded themselves as confident people with a wealth of successful examples of personal growth and development from past experience. This attitude was transferred over to approaching new skills including competently caring for women choosing water birth, whereas another midwife who evaluated her personal level of water birth confidence as five out of ten on the Likert scale and had been registered less than five years acknowledged that she didn't consider herself a confident person in general and that this would have had an effect on her confidence to support water birth.

Environmental influences on midwives professional confidence to practise

The findings in this study have highlighted how the maternity setting in which the midwife is employed is a key factor influencing their confidence to support women who have chosen the option of water birth. The findings describe how the midwives believed being immersed in a culture that promoted a natural birth philosophy had a positive impact on their confidence to support water birth. Within the major category ***what came before the journey*** is a sub category named **midwifery initiation**; this sub category outlines how the midwives felt that the style of their own midwifery education impacted on their confidence to support this normal birth skill. These midwives had achieved their good grounding in natural childbirth by working in maternity facilities that offered a midwife led model of care with low intervention rates such as the maternity facility offering the Leboyer method of birth, birth centres or as privately practising midwives. Several midwives reported feeling that working in a model of care that supported natural, physiological child birth had been a major factor for the acquisition and maintenance of confidence to support water birth.

The second major category labelled ***becoming confident –the journey*** contains the subcategory **another midwife in the room,** in which the focus group midwives from the Community Midwifery Program (CMP) reflected how in a hospital culture where high risk obstetric medical intervention is more prevalent, a notable hierarchy of control amongst staff exists. In comparison these midwives from the focus group, who provide care for low risk women who wish to birth at home, felt the culture within the CMP was very different from a hospital setting. The CMP midwives were observed in their interview to be supportive of each other professionally and felt that within this environment, hierarchical issues did not arise. They were also able to practise autonomously and develop the skills to nurture natural childbirth without fear of unwanted interruption or interference. Although the CMP midwives worked within the parameters of policies and guidelines designed to ensure safe practice, the prospect of a doctor or senior colleague entering the birthing environment (i.e. the woman's home) uninvited and changing the agreed plan of care did not exist. The creation of a safe haven by midwives during planned home birth is confirmed in a mixed methodology study carried out in four Nordic countries (Sjoblom, Idvall,

Lindgren, & Nordic Homebirth Research, 2014). A questionnaire comprising of qualitative and quantitative elements was completed by 939 women who planned to home birth. Of these participants 603 had included their birth stories in response to the open question. Content analysis of the qualitative arm resulted in one general theme, 'the competence and presence of the midwife creates a safe haven' comprising three categories labelled 'midwife's safe hands', 'midwife's caring approach' and 'midwife's peaceful presence'. The relationship between the woman and the midwife was shown to benefit from the exclusion of the hospital environment and the presence of additional medical personnel.

Within the same the major category '***Becoming confident'*** is another subcategory labelled '**Consistent exposure – the challenge** '. It is apparent from this subcategory that the midwives working within a hospital setting had difficulty getting sufficient water birth exposure to develop their confidence. This contrasts to the midwives who had been employed in a model of care that catered for low risk normal child birth, where the opportunities to practice the skill of water birth were plentiful enabling them to become proficient and confident. Also within this sub category is another insight from the focus group midwives who described how they felt comfortable and confident with water birth while working in a low risk normal birth environment. The midwives also noted that when they moved to a maternity setting that was medicalised and their work colleagues were not practising a non-intervention style of midwifery, their confidence in skill such as water birth designed to support natural birth would diminish. This was not because they had forgotten the skill or hadn't practiced; rather they felt it was the medicalised environment that had a negative influence on their confidence.

Further insight into how the environment could influence the midwives confidence to support water birth is evident in the final major category ***staying confident.*** The subcategory **it's just birth** shows how the midwives confidence to support water birth was highly improved when they were also confident in supporting a natural physiological birth. To these midwives water birth was just an extension of the fundamental skill of midwifery that is being with woman during labour and birth.

These findings correspond with a growing body of research that shows that midwives and their practice are influenced by the environment in which they practice. Hammond and associates (2003) have written a discussion paper that theorises a link between the birth environment and midwifery practice via neurobiological responses such as the production and release of oxytocins within the midwife. The paper proposes that quality midwifery care requires the facilitation of a trusting social relationship that provides emotionally sensitive and empathetic care to the childbearing woman. Neuropeptide oxytocin production increased in response to environmental triggers with the effect of increasing trust, reducing stress and heightening empathy in the midwife, leading to the provision of quality midwifery care.

There is also evidence that suggests the same midwives practice differently within a hospital environment than they do in a home setting. A study was carried out by Miller and Skinner (2012) comparing the outcomes for first-time mothers who gave birth at home or in hospital, within the practice of the same midwives. The study was undertaken in New Zealand, where 80% of women have a midwife as their lead maternity caregiver. Midwifery-led continuity of care is the norm within this maternity culture and home birth is freely available and supported. Midwives who work in the community provide continuity of care and can support women to give birth either at home or in hospital. This quantitative study was carried out using a survey, which was generated following a focus group discussion that compared midwifery practice in different settings (Miller & Skinner, 2012). Two groups of matched low-risk first-time mothers were recruited: one group planned to give birth at home and the other in hospital. They were compared with respect to birth outcomes, midwifery care, and in relation to evidence-based care guidelines for low-risk women. The results from the survey revealed that women in the planned hospital birth group (n=116) used more pharmacological pain management techniques, experienced more obstetric interventions, had a greater rate of postpartum haemorrhage, and achieved spontaneous vaginal birth less often than those in the planned home birth group (n=109). The researchers concluded that despite care by the same midwives, first-time mothers who chose to give birth at home were not only more likely to give birth with no intervention but were also more likely to receive evidence-based care.

The issues around supporting natural physiological birth in a hospital setting reported by the midwives in this study reflect the findings of a study by Russell (2007). The main purpose of her study was to describe midwives' experiences of supporting normal birth in two obstetric led units in the UK. A grounded theory methodology was adopted to analyse data collected via semi structured interviews. A total of six midwives were recruited via a local educational workshop on normal birth skills. The three categories identified were labelled: labour ward hierarchy, labour ward practices and normal birth knowledge and skills. The first category, labour wards hierarchy, concurs with the comments made by the focus group midwives from the current study as it describes how the midwives felt that the doctors were at the top of the hierarchy ladder, followed by the midwifery managers and senior labour ward midwives. Russell (2007) describes in her findings how the participants acknowledged that the senior labour ward midwives and doctors were influential with regards to normal birth practice. The junior and middle tier midwives could have their efforts to promote a normal physiological labour over ridden by these superiors. This issue of hierarchy was magnified by what the participants described as the prevalence of many senior midwives working only on labour ward and not rotating through antenatal and postnatal wards. The UK midwives described how some midwives who adopted traditional birthing skills supporting normal birth were labelled as 'mad' or 'bolshie' by fellow midwives and doctors. Other strategies and tactics identified in Russell (2007) study to maintain clinical autonomy and protect women experiencing normal childbirth were similar to those expressed by the midwives in this study. The UK midwives expressed how by staying in the labour room they experienced higher levels of control as they were less likely to have interference from senior midwives or doctors. They also reported how they would always underestimate vaginal examination results in order to allow the women more time, as the midwives views of normal progress in labour were often at odds with the medical model of care. All the midwives in Russell's study felt that obstetric units were not suitable for normal birth and suggested that alternatives such as low risk rooms, home birth and midwife led units would be more appropriate (Russell, 2007). Similarities between the findings from this Russell's (2007) study and the subcategory, **attitude to water birth,** from the first major category labelled ***what came before the journey*** exist. In the category **attitude to water birth** the

midwives discuss how they had preconceived opinions about water birth before their initial personal encounter. Their opinions were based on social persuasion and cultural influences. The described negative feelings towards water birth and their reluctance to become engaged with this birthing option. These preconceptions did not impact on the midwives ability or willingness to develop confidence to support this birthing option when the opportunity arose.

In the United Kingdom, where the practice of water birth has become established, it was reported in a national birth place study (Birthplace in England Collaborative Group, 2011) that women who gave birth in free standing midwifery units were four times more likely to achieve a water birth than those giving birth in an obstetric led unit. Around the same time as this report was published, Russell (2011) published an investigation into the views of UK labour ward midwives on water birth in a critical discourse analysis. These findings are based on data collected via five unstructured interviews with labour ward matrons, a consultant midwife, a labour ward manager and clinical practice facilitator; additional data were collected over eight months from three focus groups of 11 clinical midwives all working within a hospital setting. Russell (2011) found the key obstacles to water birth in a hospital setting to include co-ordinators' priorities, midwives' negative attitudes, high workloads, and lack of institutional support for this type of care. Russell (2011) concluded that hospital water birth practice is dependent not only on the availability of equipment and midwifery knowledge, but also on the philosophy of care adopted by the organisation. Key findings from this first phase of Russell's research concur with the findings in subcategory **another midwife in the room** from this study, in which the focus group midwives from the CMP reflect how in a hospital culture where high risk midwifery and medical intervention is prevalent; there existed a notable hierarchy of control amongst staff compared to non-hospital settings. The presence of this senor authority figures who regulated access to the poolroom and controlled less powerful midwives' clinical practice behaviours is highlighted in both this and Russell's study (Russell, 2011).

Following dissemination of the findings to senior midwifery managers from Russell's initial study the second stage of this research project was conceived (Russell, Walsh, Scott, & McIntosh, 2014). It was decided to use a problem solving

water birth co-ordinator workshop to initiate changes in the way water birth practice was promoted and organised. A questionnaire was developed to measure labour ward midwives' water birth practice (frequency), personal knowledge of water birth practice, water birth self-efficacy and levels of colleague support over three research phases during a 12 month period. A problem solving water birth workshop was developed and facilitated by the main author and a water birth co-ordinator from a comparable unit where the water birth rate was 280 per annum compared to 45 per annum in the obstetric hospital under investigation. The role of the midwife educator/researcher during the workshops was to facilitate discussion and to act as a change agent, influencing individual's readiness for organisational change through critical thinking and reflection. Three two-hour problem solving water birth workshops took place in which all nine labour ward co-ordinators were invited to participate; an average of five co-ordinators attended each session. At the beginning of each workshop, water birth rates and midwives' perceived barriers to water birth practice were discussed. The co-ordinators were encouraged to develop interventions to address the identified barriers to care and find ways of supporting water birth practice. Interventions developed by the co-ordinators were to improve the recording of water birth rates, publish statistics on a monthly basis and included water birth discussions in departmental meetings. They also agreed to appoint a water birth champion, keep portable birthing pools partially inflated and to set a target of 100 water births in twelve months. The authors developed a questionnaire based on the work of Bandura (Bandura, 1997) to measure water birth self-efficacy. This newly developed tool was piloted using the 'known group' method with 22 first year student midwives who had not worked on a labour ward and 19 water birth practitioners from a different maternity unit known to have high water birth rates. The pilot study indicated that the psychometric properties of the questionnaire were adequate. The questionnaire was completed by participants at 6 weeks pre workshop (n=29), and 4 (n=25) and 8 (n=42) months post-workshop completion. The increase in the response rate for the third data collection phases the authors suggests was due to an increased awareness and support for the water birth initiative. The most significant change that can be attributed to the intervention is the increase in the levels of colleague support between the pre workshop findings and the 8 month post workshop findings. The introduction of problem solving workshops appeared to enhance co-ordinators ability to take action to promote water birth practice. The

authors suggest the intervention and changes in leadership subtly nudged the behavioural norms of the labour ward in favour of water birth practice.

The major category ***staying confident*** contains the subcategory **it's just birth** which suggests that the knowledge and skills necessary for the facilitation of water birth practice are similar to those used by midwives in normal childbirth i.e. observational, interpersonal skills to monitor labour progress and non-pharmacological methods of analgesia (such as water) to ease labour pain. The need for midwives that are confident in normal birth skills is supported by Russell and associates (Russell et al., 2014), who propose that the consistently high levels of water birth self-efficacy amongst participants were in part due to mastery experiences of normal birth care on land. Bandura (1977) proposes that successful performance of an action which can be attributed to a person's own efforts and abilities develops self-efficacy. This, along with changes to colleague support for water birth practice generated by the intervention, gave rise to changes to self-regulation (Bandura, 1995). In other words, with support and modelling by co-ordinators, the practice of water birth became normalised and an accepted part of labour ward midwives' working lives.

The midwife led maternity settings in this study show a greater percentage of water birth occurrences (Family Birth Centre 58.9%, CMP 79.6%) compared to the hospital/obstetric settings in WA (Armadale Hospital 5.9%, Kaleeya Hospital 9.6%) (Health Networks Branch, 2011). This data along with other evidence drawn from existing literature (Birthplace in England Collaborative Group, 2011; Miller & Skinner, 2012; Russell, 2011; Russell et al., 2014) has shown a marked variation in the use of water birth between midwifery led units and obstetric led labour wards. This reinforces the view that the care environment directly impacts on midwives' ability to promote normal childbirth choices. Within a hospital environment water birth practice may be seen as an alternative type of care at odds with the organisational priorities (Russell, 2007). Support for midwifery knowledge and skills from society and the profession along with pride in normal birth outcomes has been shown to promote the use of midwifery based skills such as water birth. Although the research suggests that such skills are easier to develop foster and obtain within the realms of a midwifery led model, this study would suggest that strategies can be put into place to assist hospital based midwives with achieving water birth confidence.

Limitations

The context of this study is the public maternity settings of WA at the point in time when the option of water birth was being introduced into a pre-existing maternity culture. As discussed in the introduction chapter of this thesis many aspects of the maternity culture in which this study was set are unique to WA. This factor limits the findings to the context of maternity settings in WA; the findings cannot claim to reflect the opinions of midwives working in alternative settings or cultures throughout the world. For example, the perceptions of privately practising midwives working in WA and facilitating water birth in the home environment are not represented in these findings. Rich description of the categories and subcategories has been presented with supporting quotes from the participants to allow readers to determine the transferability of these findings to their particular context. Transferability and not generalisability is a goal of qualitative research (Rees, 2011). In addition to the limitations imposed by the setting of the study is the time frame and historical context in which the study took place. The data for this study was collected within a 40 month period of the initial introduction of the option of water birth in public health settings in WA, a period when this birthing option was in the introductory stage and not well established. The perception of confidence of midwives supporting water birth within current health services with an established water birth option may differ from the midwives interviewed in this study during this introductory phase.

Recommendations

The findings from this study offer insight into the perception of confidence in midwives supporting women who have chosen the option of water birth within the public health setting of WA. This insight is now used to suggest possible strategies that could be adopted, or changes that could be considered that may foster, enhance and support the development of confidence to support this birthing option.

Clinical practice

- The second major category ***becoming confident the journey*** contains a subcategory, labelled **another midwife in the room**, which highlighted how sharing a water birth experience with another midwife can be either

positive or negative, particularly in a learning situation. Having an experienced, caring mentor by your side was seen as reassuring and a boost to confidence. Alternatively a mentor who was not confident in a water birth situation or in the role of teacher had a negative influence on the confidence of the midwife learning to support water birth. This would suggest that mentors have a profound influence on the midwife's professional confidence as she learns to support water birth. For this reason mentors who are experts in water birth, who are not only competent but also confident in this skill should be selected to 'champion' midwives who are learning. Each health service that aims to offer the option of water birth should select a suitable midwife who is willing to 'champion' this birthing option who is able to co-ordinate the requirements of competence and confidence in the midwives who are learning to support water birth.

- Within the second major category ***becoming confident the journey*** is the subcategory, **consistent exposure – the challenge** which illustrated the midwives' perceptions of the importance of consolidation and practice on confidence to support water birth. This study has shown that midwives who were deemed competent did not feel confident without consolidating their learning through practice. Midwives who were working in a hospital setting found the acquisition of confidence more challenging to achieve as the opportunities to practice were less frequent. For this reason we recommend that the number of midwives who are learning to support water birth should be equated to the number of water births conducted within the maternity setting to ensure that sufficient practice is available to develop a level of confidence to support this option.
- Another subcategory in the major category ***becoming confident - the journey*** is labelled **trust in the guidelines**. This shows how the midwives relied on the hospital guidelines particularly when learning to support water birth. The midwives participating in this study have revealed how they often refer to the clinical guidelines to refresh their memory regarding safe practice, and this increase their confidence. As a result of this finding a recommendation that up-to-date evidence based clinical guidelines should be available for the use of all midwives supporting water birth is made.

- Within the major category, ***what came before the journey***, was the subcategory **midwifery initiation.** This subcategory presented how the midwives found being immersed in a culture that promoted a natural birth philosophy had a positive impact on their confidence to support water birth. The sub category **consistent exposure – the challenge** also revealed how midwives working in an environment that supported low intervention found it easier to achieve the necessary exposure to achieve confidence with water birth. These midwives also noted that when they moved to a maternity setting that was medicalised their confidence in skills such as water birth which promotes natural birth would diminish. The major category ***staying confident***, included the subcategory **it's just birth** which illustrated how the midwives confidence to support water birth heightened when they were also confident in supporting a natural physiological birth. All of these subcategories suggest maternity settings that support midwifery led models of care for low risk women serve to foster, attain and retain skills such as water birth designed to supporting a natural physiological birth. A recommendation is that an increased presence of maternity settings that offer a midwifery led model of care would be a positive addition to the maternity service of WA for maternity service users and midwives.

Education

- The major category, ***what came before the journey*** contains the sub category **midwifery education which** revealed how all the midwives who had participated in water birth education prior to their initial personal experience found this useful. This finding leads to the recommendations that midwives must be supported to attend an educational activities including face to face and on-line options, with a specific water birth focus prior to learning to support water birth in the clinical practice setting.
- The findings from the major category ***what came before the journey*** contains the sub category **midwifery initiation** which indicate that midwives who had

practiced in a low risk maternity setting that was supportive of minimal intervention and physiological birth as students and graduates were confident in supporting water birth. This finding would suggest a recommendation that students and graduate midwives would benefit from the opportunity to work in midwifery led maternity settings that support normal physiological child birth and that accessing such practical placements should be encouraged.

- The challenges that midwives with many years of clinical practice experienced unlearning old skills, and adopting new practices was highlighted in major category ***becoming confident - the journey***, sub category **unlearning – old skills for new.** Consequently, a recommendation that learning opportunities directed specifically at experienced senior midwives should be developed advocating the importance of continuing professional development at all stages of a midwife's career. This study day could be designed to heighten awareness of changes due to research and evidence based practice. The skill of reflecting on practice and how verbal and personal behaviours impact on colleagues could be included.

- The final major category in this study labelled ***staying confident***, contains the subcategory was named **its just birth**. This sub category illustrated how the midwives confidence to support water birth was greatly improved when they were also confident in supporting a natural physiological birth. Therefore a further educational recommendation is that attendance at educational days with a focus on supporting normal physiological birth should be a regular event for all midwives that support women in labour. These days would be designed to up-date and refresh midwives on factors, facilities and options (including water birth) that research has shown as beneficial to supporting normal birth.

Research

- This The findings from this study suggest that how midwives perceive their ability to support the option of water birth is facilitated on the model of care at the maternity setting they are employed at. A study is recommended that investigates factors that relate to the birth environment

and the midwives ability to support normal physiological birth as this would be a useful addition to midwifery knowledge.

Summary of thesis

This thesis is the result of a clinical question that arose following the introduction of the option to birth immersed in water in public health services in WA. A midwifery work force that was confident and competent to support women choosing the option of water birth was an essential component in the safe delivery of this service to suitable women. I wanted to discover how I could assist my colleagues to feel confident in a clinical midwifery skill that was new to many and viewed by some as unconventional.

The first chapter sought to demonstrate how competence and confidence are separate phenomena that do not always coexist. The requirement for choice in appropriate birthing options for women is then highlighted to clarify the need for the introduction of water birth in WA clinical services. The unique context in which this study is set, WA, is then described using the history of water birth in other developed countries as a bench mark. The chapter concluded by explaining the challenges and importance of securing a work force of confident and competent midwives to deliver the option of water birth to the women of WA.

The second chapter revealed the gap in knowledge that this study has addressed. Initially the current literature relating to the phenomena of professional confidence was explored using evidence from disciplines of health, psychology and business. This was followed by a review of the literature pertaining to the option of birthing in water including perceived benefits, negatives, and safety concerns.

Chapter three presents how a modified grounded theory methodology was selected as the most appropriate method to address the objectives of this study. The objectives of this study were then identified and presented under the conventional headings of

setting, sampling and recruitment, ethical considerations, data collection and data analysis.

The fourth chapter in this thesis contains the findings from this study. Three major categories were identified as ***what came before the journey, becoming confident - the journey*** and ***staying confident.*** Each of the three major categories contained between three and five subcategories which, when combined, form the essence of the major category. The content of each subcategory was illustrated using verbatim quotes from the one to one interviews and the focus group interview with the participating midwives.

This final chapter has summarised the finding of this study that explores, explains and describes the phenomenon of professional confidence in midwives supporting water birth inWA. These finding were discussed and compared with the existing body of evidence and literature. The requirement for positive reinforcement and repeated experiences in order to develop professional confidence was highlighted. The vital importance of confident and competent mentors to nurture and teach midwives as they learn to support water birth is emphasised as is the need for a positive attitude to continuous professional development. This chapter has compared the findings with other studies to contribute to the body of knowledge on how we can best support midwives to develop their confidence with the skills of facilitating women being able to realise their preference of labouring and/or birthing immersed in water. Finally, recommendations are made for clinical practice, education and research based on the findings of this study.

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Appendix 1 – Participant's Information Sheet

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Participants Information Sheet

A qualitative descriptive study exploring the perception of confidence within midwives facilitating water birth in Western Australia.

Why are we doing the study?

In direct response to demands from the women of Western Australia a state wide operational directive was published along with clinical guidelines for the use of water during labour and/or birth in WA Health hospitals and health services. The Women's & Newborns' health Network guidelines aim to enable midwives and medical practitioners to provide care that is as safe as possible for healthy pregnant women. Both these documents state that;

> *"the midwife or medical practitioner must be confident and competent to facilitate a woman's labour and/or birth in water"*

The purpose of this study is to explore and describe the phenomenon of confidence from the perspective of midwives working with women who choose to labour and/or birth immersed in water within the public hospital setting of Western Australia.

Who is carrying out the research?

The research is being conducted by Sarah Nicholls as part of the requirements of a higher degree by research at Curtin University. Ms Janice Butt and Mrs Sara Bayes are her supervisors, and Ms Sunita McGowan is an Assoc. supervisor.

What is expected if I decide to participate?

If you consent to participate, Sarah would like to interview you. The interview will be tape-recorded and last for about 45 minutes. Sarah will attend the interview at a time and place that suits you. During the interview she will ask you questions about your confidence to facilitate women who choose to labour and /or birth immersed in water. You will also be asked to complete a demographic questionnaire and sign a consent form.

Is there likely to be a benefit to other people in the future?

The women of Western Australia want this birthing option. Competent and confident midwives are an essential element in the deliverance of this. Insight into what affects confidence would help to develop strategies that could be used in the preparation and education of midwives to provide safe, confident care.

There is a gap in research relating to midwives' perception of water birth as well as the influence of confidence on outcome. Additional insight into these areas will be useful for midwives' professional development. It may also highlight the need for further research and improved audit data collection.

Sarah Nicholls (student no.15127253) Master of Philosophy (Nursing) candidate
Curtin University: Division of Health Sciences (School of Nursing and Midwifery)

Findings may inform future policy and guideline development in the area of competency and confidence of midwives caring for women labouring immersed in water.

Where is your information kept?

All information will be stored on a password protected computer. In keeping with the requirements of the National Health and Medical Research Council guidelines, the transcribed interviews and field notes will be kept in a locked filing cupboard for a period of five years and then destroyed.

Will my privacy be protected?

Your identity will be known only to Sarah who will keep names and workplace details in a secure place, separate to the interview transcripts. Your participation in the study is voluntary. You would be free to withdraw at any time.

Who has approved the study?

The Human Research Ethical Committee at Curtin University and the relevant hospital ethics committees in the North and South Metropolitan Area Health Services. This study will adhere to the National Health and Medical Research Council statement for the ethical conduct of research with humans (NHMRC, 2007).

Who to contact for more information about this study:

If you would like any more information about this study, please do not hesitate to contact one of the research team. They are very happy to answer your questions.

Name	**Contact details**	
Sarah Nicholls	E-mail; Sarahn0105@ googlemail.com.	Mobile number; 0401 286514

Who to contact if you have any concerns about the organisation or running of the study?

If you feel you are able to participate could you complete the short demographic questionnaire attached. When completed this questionnaire can be emailed to the above or handed to your lead water birth midwife who has agreed to forward them to me confidentially. I will then contact you direct. Written consent will be obtained at your interview.

Thank you for considering taking part in this study.

Sarah Nicholls (student no.15127253) Master of Philosophy (Nursing) candidate
Curtin University: Division of Health Sciences (School of Nursing and Midwifery)

Appendix 2 – Demographic Questionnaire

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Demographic Questionnaire

Name .....

Current employer .....

Telephone contact .....

e-mail contact .....

What year did you become a Registered Midwife? .....

Are you considered competent by your current employer to care for women who choose to birth in water?

Yes or no

Can you please write a brief summary of your professional water birth experience (if any)?

.....

.....

.....

.....

.....

Please indicate on the scale below how confident you currently feel to care for a woman who chooses to birth her baby while immersed in water?

1.....2.....3.....4.....5.....6.....7.....8.....9.....10

Not confident **completely confident**

Sarah Nicholls (student no.15127253) Master of Philosophy (Nursing) candidate
Curtin University: Division of Health Sciences (School of Nursing and Midwifery)

Appendix 3 – Interview

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Interview

Initial questions - aimed to focus the participant on the area of interest. Guide only.

1. *Can you tell me how you first became involved in caring for woman who chose to labour and birth immersed in water?*

2. *What do you feel contributed to you becoming confident to care for these women?*

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Appendix 4 – Form of Consent

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FORM OF CONSENT

PLEASE NOTE THAT PARTICIPATION IN RESEARCH STUDIES IS VOLUNTARY AND SUBJECTS CAN WITHDRAW AT ANY TIME WITH NO IMPACT ON CURRENT OR FUTURE CARE.

I .....have read
Given Names Surname

the information explaining the study entitled

A qualitative descriptive study exploring the perception of confidence within midwives facilitating water birth in Western Australia.

I have read and understood the information given to me. Any questions I have asked have been answered to my satisfaction.

I understand I may withdraw from the study at any stage and withdrawal will not interfere with routine care.

I agree that research data gathered from the results of this study may be published, provided that names are not used.

Dated ..... day of ..... 20 .....

Signature .....

I, ... have explained the above to the
(Investigator's full name)

signatory who stated that he/she understood the same.

Signature .....

Sarah Nicholls (student no.15127253) Master of Philosophy (Nursing) candidate
Curtin University: Division of Health Sciences (School of Nursing and Midwifery)